

Florida Department of Agriculture and Consumer Services

ANNUAL Report

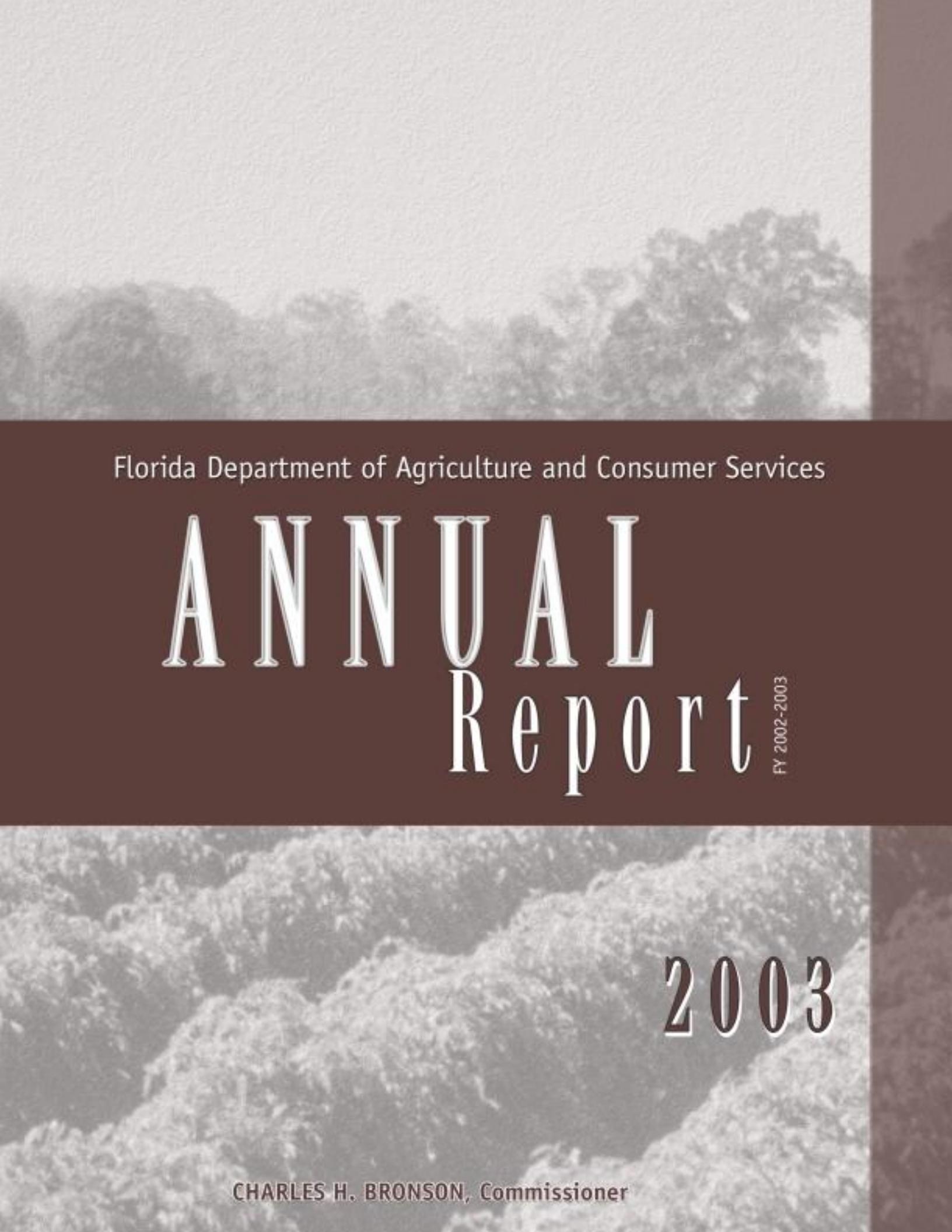
FY 2002-2003



2003



CHARLES H. BRONSON, Commissioner



Florida Department of Agriculture and Consumer Services

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Letter from the Commissioner

The Florida Department of Agriculture and Consumer Services is the largest state agriculture department in the country and has the considerable responsibility of providing support services for Florida's agricultural industry while also safeguarding the public. To accomplish this, the Department is involved in activities as diverse as administering animal health programs; conducting plant inspection and certification programs; responding to consumer complaints; collecting statistics on production; and developing marketing campaigns to boost sales of Florida agricultural products.

In order to ensure the safety and wholesomeness of our food, Department personnel regularly inspect food processing, distribution, and retail facilities, while Department laboratories perform thousands of sophisticated analyses of food samples each year. An important concern is the prevention of food-borne illness, and the Department has the authority to halt the sale of products when it considers them hazardous to public health. Since 9/11, many of the Department's resources have focused on the security of our food supply and the health of our animals.

Another of the Department's responsibilities is conserving and protecting our agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands. The Department also participates with other state law enforcement agencies as primary responders in cases of emergency, and the Department is the state's lead agency for acquiring food, water and ice, as well as coordinating the care and welfare of livestock and pets in the event of a disaster. When wildfires threaten property and lives in the wildland/urban interface, the Department's highly trained firefighters are ready to respond.

The Department also enforces animal and plant health regulations designed to control the spread of pests and diseases. It inspects feed, seed, fertilizer, and other agricultural products to ensure that farmers as well as backyard gardeners get what they pay for. Programs to preserve Florida's natural environment focus on the regulation of pesticides, promotion of Best Management Practices for soil and water conservation, education of the public about conservation issues, and management of state forests and other public lands.

To protect consumers from unfair and deceptive business practices, the Department registers certain businesses and also functions as Florida's agent for the U.S. Consumer Product Safety Commission regarding product recalls, inspections and investigations. The Department also inspects a wide range of equipment, such as petroleum distribution systems, commercial weighing and measuring devices, and amusement devices and attractions.

The Department plays an important role in the continued growth of Florida's economy by assisting farms and agricultural industries with the production and promotion of their products. Whether that help comes in the form of a seminar for a would-be shrimp farmer to learn the economics of the business or a workshop that teaches a forest landowner how to save his trees from pine beetle infestation, the Department offers a wealth of technical information and practical expertise.

But producing agricultural commodities is only part of the process — those commodities must then be sold — and the Department has been eminently successful at developing marketing campaigns and advertising strategies that promote Florida products to the rest of the nation and to the rest of the world.

The Department's work is diverse, complex, and critical to Florida agriculture. This annual report will tell you more about it.

Sincerely,



Charles H. Bronson

Commissioner of Agriculture



Introduction

Florida produces more than 280 commercially grown agricultural commodities that generate annual cash receipts of approximately \$7 billion, which makes agriculture a major part of Florida's economy. The activities of the Florida Department of Agriculture and Consumer Services help keep that economy strong.

This year, Department food inspectors carried out more than 90,000 inspections of over 46,000 retail food stores and businesses to ensure adherence to food and safety standards. Dairy inspectors visited more than 2,000 dairy farms and processing plants throughout the state, collecting and testing nearly 16,000 samples of milk. The Department is also responsible for reviewing food labels for accuracy and compliance with federal and state requirements.

The Department monitors seafood products and their harvesting areas by managing programs involving aquaculture certification, leasing of sovereignty submerged land, shellfish resources development, shellfish processing plant certification, shellfish harvesting area management, and technical support. This year, more than 500 regulatory processing plant inspections were conducted, and over 100 Shellfish Processing Plant Certifications Licenses were issued. The Department also certified more than 1,000 aquaculture facilities during the year.

The Department's Office of Agricultural Law Enforcement supports state regulatory programs by conducting inspections of highway shipments of agricultural, horticultural, aquacultural, and livestock commodities. The Department operates 22 agricultural interdiction stations around the state, and inspections are conducted 365 days a year, by about 200 law enforcement personnel and a support staff of 10 individuals.

Among the current threats to Florida agriculture are insects such as the Oriental fruit fly and the pink hibiscus mealy bug that can damage produce crops. Mosquitoes can carry diseases such as Eastern equine encephalitis and West Nile virus, which can be fatal to both horses and humans. The Department is vigilant against these and other pests, maintaining aggressive detection and eradication programs where needed in the state.

Safeguarding consumer rights, the Department's Division of Consumer Services handled almost 44,000 written complaints during the year; answered more than 318,000 calls; and produced over 164,000 brochures, pamphlets and booklets for distribution to consumers.

The Department also supports the agricultural industry by promoting its products through campaigns that raise public awareness and increase sales. In fiscal year 2002-03, three major springtime promotions involved more than 8,000 retail outlets, targeting consumers as far away as Canada and boosting sales of Florida fruits and vegetables by more than \$170 million.

The Department uses Best Management Practices to help conserve Florida's natural resources, including its forests, surface water, and ground water, while endangered species are protected from any dangers arising from pesticide use. Emergency threats to Florida agriculture can occur at any time, and teams are ready 24 hours a day to respond to emergencies such as wildfires, insect pests, natural disasters, animal diseases, and plant diseases such as citrus canker.



Supporting FLORIDA Agriculture

Statistical Reporting

Reliable information is essential to making production, marketing and policy decisions for the agricultural community. The Florida Department of Agriculture and Consumer Services shares in a cooperative federal/state program responsible for collecting and disseminating Florida agricultural statistics. Information on the state's major commodities is gathered through on-site producer surveys, voluntary mail questionnaires, and telephone and personal interviews. In 2003, the Department began collecting some weekly information using a web-based system. Statistics compiled from these data are available in over 200 reports issued annually.

In the past year, the public relations efforts of the Florida Agricultural Statistics Service (FASS) included staffing an informational booth at industry trade events for citrus and cattle. The booths allows FASS to promote its role in the industry and increase the visibility of its reports.

In 2002, Florida's agricultural cash receipts amounted to \$6.85 billion, 2.4 percent higher than in 2001. Cash

receipts were higher for oranges, tangerines, tangelos, potatoes, sugarcane, green peppers, watermelon, and floriculture and lower for sweet corn, cotton, grapefruit, milk, peanuts, and eggs. Florida leads the nation in cash receipts for oranges and sugarcane and ranks second in cash receipts for tomatoes, strawberries, and greenhouse and nursery crops. Florida leads the nation in production of citrus, sugarcane, foliage plants, cut floral greens, and tropical fish.

Citrus

An initial citrus production forecast is issued in October and modified monthly through the citrus season based on fruit size measurements and observations on droppage. These forecasts are based exclusively on objective data obtained directly by field personnel, including an extensive limb count survey conducted from July into September to estimate fruit set per tree. Florida's citrus growers produced 203 million boxes of all oranges and 38.7 million boxes of grapefruit in the 2002-03 season.

Cash receipts for all citrus crops sold in 2002 totaled \$1.46 billion compared to \$1.33 billion in 2001. Citrus accounted for 21 percent of all cash receipts in 2002.

Vegetables

Cash receipts for all vegetables amounted to \$1.57 billion, which was 23 percent of all cash receipts in 2002. Tomatoes, peppers, sweet corn, cucumbers, and snap beans accounted for the largest amount of sales among vegetable crops.

Greenhouse and Nursery Production

The total value of Florida greenhouse and nursery production exceeded \$1 billion. The foliage and floriculture industry contributed \$877 million, up from \$840 million in 2001.



Berries and Melons

Strawberry production for 2002 was up slightly from the year before, but due to a lower average price, cash receipts were \$153 million, down from \$167 million in 2001. Significantly higher prices and slightly higher production for watermelons resulted in an increase in total value to \$62.2 million in 2002.

Field Crops

Potato production in 2002 increased 4 percent from the previous year, and a higher average price resulted in cash receipts of \$212 million to growers. Sugarcane production was up 7.8 percent from the previous year and total cash receipts were \$518 million in 2002. Cash receipts for peanuts decreased 21 percent to \$35 million due to a lower average price in 2002. Tobacco growers produced 12 million pounds of tobacco, valued at \$18.2 million in 2002. Significant decreases in production for cotton lint and cottonseed produced cash receipts of \$23 million in 2002, compared to \$26.5 million in 2001.

Other Fruits and Nuts

Receipts for other fruits and nuts, such as avocados, blueberries, mangos and pecans, at \$91.7 million, were slightly higher than in 2001.

Dairy

A decrease in milk production in 2002 and lower prices led to decreased receipts of \$356 million compared to \$428 million in 2001.

Cattle and Calves

Beef cow numbers decreased during 2002. Slightly lower prices resulted in cash receipts for all cattle and calves of \$333 million compared to \$362 million in 2001.

Poultry and Eggs

Egg sales in 2002 totaled \$109 million, down from \$122 million in 2001. Broiler production was up slightly in 2002, but sales decreased to \$196 million from \$254 million in 2001.

Aquaculture

Aquaculture contributed more than \$99 million to total cash receipts. Tropical fish sales accounted for more than 42 percent of all aquaculture sales. Aquatic plants and clams accounted for another 40 percent of sales in this category.

Honey

Florida was third in the nation in honey production in 2002 (behind California and North Dakota) with 20.5 million pounds valued at \$22.9 million. There were an estimated 220,000 colonies in Florida in 2002.

Fruit and Vegetable Inspection

The Department's Division of Fruit and Vegetables serves as a third party to provide on-request inspections for the purpose of certifying the quality and condition of produce shipped in and out of the state to national and international markets. The Department's services, provided in cooperation with the U.S. Department of Agriculture, enhance the marketability of fruit and vegetables produced and imported into Florida.

Department inspectors and personnel spent more than 254,406 hours inspecting 11,941,271 tons of product in processing plants, packing houses, terminal markets and shipping points during the 2002-03 season.

Committed to meeting the needs of Florida's fruit and vegetable industries through fiscally responsible quality assurance and technical assistance services, the Department continually strives to find innovative and cost-effective methods of inspection. With new programs like Partners in Quality and the Customer Assisted Inspection Program, customers participate in the inspection process using plant staff with Department training and supervision.

The Department continues to pursue advanced technology as a way to streamline information transfers and limit redundant clerical activity.

License and Bond Service

The Department continued its support of Florida agriculture by conscientiously administering Florida's Dealers in Agricultural Products Law. This law ensures that Florida producers of agricultural products covered by the license and bond provisions receive proper accounting and payment for their products. The Department issued 4,327 licenses and collected \$553,036 in license fees during fiscal year 2002-03. The Department managed \$102,191,232 in bond protection for Florida growers.

Department associates settled 139 dealer complaints in the past year. Complaints against dealers in agricultural products must be filed within six months from the date of sale and total a minimum of \$250. The Department's efforts resulted in a recovery of \$1,114,780 on behalf of Florida agricultural dealers.

The Department closely monitors dealers to make sure they maintain adequate bonds to protect Florida growers. Department associates conducted 632 bond and compliance audits of dealers' records during the year. These audits are

designed to ensure that bond amounts are maintained; determine whether unlicensed dealers were exempt from license and bond requirements; determine if prospective licensees were conducting business in a manner requiring licensure; and document violations of Department enforcement actions.

The Department opened 51 new enforcement cases, closed 60 cases, and collected \$14,306 in administrative fines during fiscal year 2002-03. Enforcement actions resulted in an additional \$447,591 of bond protection for Florida growers, and 21 of the cases ended in licenses being issued.

State Farmers' Markets

The Bureau of State Farmers' Markets manages four major program initiatives: State Farmers' Markets; Community Farmers' Markets; Women, Infants, and Children/Farmers' Markets Nutritional Program (WIC/FMNP); and County Fair permitting.

State Farmers' Markets tenants and clients marketed \$556 million in wholesale value of produce, livestock, and value-added products during the fiscal year.

Over 170 farmers participated in the Women, Infants, and Children/Farmers' Markets Nutritional Program this year. This program promotes a healthy diet by encouraging consumption of fresh fruits and vegetables by WIC mothers and children while boosting farmers' sales at participating locations.

The County Fair permitting section issued permits for 49 fairs. Approximately \$300,000 was distributed to these fairs and other public organizations as agricultural premium and awards reimbursements. These awards encourage participation by Florida's youth in agricultural programs.

The Community Farmers' Market program assisted in the establishment of seven new community farmers' markets, bringing the total number of markets in operation to 59.

Livestock

Through its Division of Animal Industry, the Department serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals. In enforcing Florida's animal health regulations, the Department also works to protect the state from animal pests and diseases that threaten economic and public health.

Continually challenged by new and emerging diseases that require the continuance of current activities alongside the development of new activities or methods involving the testing, vaccination, surveillance and monitoring of animals, the Division of Animal Industry moves forward to prevent, control and eradicate animal diseases through:

- Detecting diseases by inspection of livestock on farms/ranches, through programs and sentinel sites.
- Testing livestock using animal-related diagnostic laboratory procedures.
- Promoting and mandating healthy, sanitary and humane care and confinement of livestock, vaccination of livestock, and identification of the origin and health status of imported animals.
- Regulating, administering and enforcing laws identifying the origin and health status of imported animals via permits and health certificates.
- Teaching producers, private practitioners and the public about regulatory requirements, successes, and consequences of failure to prevent, control and eradicate animal diseases through news releases, brochures, and the Internet.
- Developing and practicing emergency response plans in the event of foreign animal diseases and other natural or man-made disasters affecting animals and animal food productions.

CSF and FMD

Recent outbreaks of Classical Swine Fever (CSF) in Europe and South Korea and Foot-and-Mouth Disease (FMD) in South America and Africa continue to heighten awareness and concern in the United States that some of these foreign animal diseases could enter the nation's seaports and airports and threaten this country's livestock populations.

Animal Disease Control

The Department is responsible for administering the state's animal disease control and eradication programs. In cooperation with USDA, the Department has moved beyond traditional perceptions of animal disease control and eradication programs by addressing public health issues and major economic impacts with the development of new programs. Recent outbreaks of Foot-and-Mouth Disease

(FMD) outside the United States, and West Nile virus (WNV) in the United States emphasize the necessity of having a strong active animal disease monitoring program in place with an open line of communication with public officials. Rather than perceiving disease control and eradication programs as bureaucratic obstacles, the public is demanding that more be done to protect the nation's animal-origin food supply. These needs — as perceived by the producer, the consumer, and associated animal industries — will influence the overall acceptability and effectiveness of future disease control and eradication programs.

The Department's program activities take into consideration the changing face of animal industries in Florida and throughout the United States. Government and industry both are faced with challenging learning curves in veterinary medicine and disease risk analysis for unfamiliar species, with few or no precedents. The Department recognizes the need to include these emerging animal industries with traditional livestock industries so they can coordinate and respond to a greater range of issues.

Animal Movement

The monitoring of the movement of livestock into Florida by the Official Certificate of Veterinary Inspection is the Department's first line of defense against the transmission or inadvertent importation of animal diseases. When diseases threaten livestock in other parts of the country, the Department may enact additional requirements for animals being imported into Florida, often requiring prior notification, permission and permitting from the Department before shipments are allowed in through the agricultural interdiction stations.

Health Certificates

During fiscal year 2002-03, the Department processed 63,639 certificates representing more than 903,931 animals moving into or out of Florida. Beef and dairy cattle were the most common type of animal moving into Florida, along with horses, swine, and goats. All livestock transported into Florida are subject to certificate verification by Agricultural Law Enforcement officers.

Livestock Haulers Permits

The Department issued 1,832 livestock haulers permits during fiscal year 2002-03.

Marks and Brands Program

The Department issued 237 new brand certificates and renewed 979 last year. The total number of brands registered in Florida is 5,566.

Poultry

The Department's Poultry Disease Control Unit conducts inspections of various poultry facilities in Florida and tests flocks in accordance with USDA's National Poultry Improvement Plan (NPIP). In Florida, this involves approximately 25 hatcheries, 19 dealers, and more than 245 independent flocks. In conjunction with this program, there were 8,097 birds tested for pullorum-typhoid (PT).

Department inspectors continue to inspect and test for PT on poultry coming into Florida fairs for exhibition. During 2002-03, the Department inspected 9,256 birds at 38 fairs. Inspectors tested 5,329 of the birds exhibited at the fairs for PT.

In the Miami-Dade County area, the Department administers a surveillance program for Avian Influenza (AI). During 2002-03, 16 flocks were tested for AI, with 160 serum samples and 40 environmental samples submitted to the Department's diagnostic laboratories.

Poultry activities included the testing and monitoring of commercial broiler breeding flocks for *Mycoplasma gallisepticum* (MG), *Mycoplasma synoviae* (MS) and AI. During 2002-03, the Department tested 129 flocks and submitted 12,214 samples for MG and for MS. For AI, 161 flocks were tested and 2,584 samples were submitted to the Department's diagnostic laboratories.

Due to the recent outbreak of Exotic Newcastle Disease (END) in California, Nevada, Arizona and Texas, the Department developed and implemented the Avian Disease Surveillance Plan (ADSP) to prevent the spread of this disease in Florida. The ADSP consists of five elements: education, training, sample collection, technology updates and Agriculture Law Enforcement surveillance. During fiscal year 2002-03, the Department inspected 93 premises for END and submitted 184 samples to the Department's diagnostic laboratories.

The Department also conducts quarterly hatchery inspections at commercial egg, meat, and turkey companies. During fiscal year 2002-03, the Department conducted 20 inspections and submitted 720 agar plate test samples. In addition, the Department conducts routine inspections of dead bird disposal methods at commercial poultry farms. There were 713 commercial poultry farms inspected during 2002-03.

The Poultry Best Management Practices Quality Assurance Program was implemented in 2001; currently, 160 farms are enrolled in the program and inspected by the Department.

The Department developed and implemented an electronic permitting system for all poultry and eggs imported into the state. Since April 2003, 448 e-permits have been issued.

Cattle

During the 2002-03 fiscal year, 645,514 cattle were inspected at livestock markets.

Brucellosis

There were 117,019 cattle from 667 herds tested in the field for brucellosis during the fiscal year, and none were found to be infected. An additional 101,143 cattle were tested at slaughter. At livestock markets, 1,074 cattle were tested, with none found infected. During the same period, 131,031 cattle were vaccinated against brucellosis.



Tuberculosis

Last year, the Department tested 135 herds/1,415 cattle for tuberculosis; no cattle were infected.

Transmissible Spongiform Encephalopathies

Transmissible spongiform encephalopathies (TSE), or prion diseases, are rare forms of progressive neurodegenerative disorders that affect both humans and animals and are caused by agents that produce changes in the brain. TSE typically have incubation periods ranging from several months to years before symptoms become apparent. No conventional serologic test can identify

TSE-infected animals, and so TSE are usually identified from the brain tissue of dead animals. There is no vaccine or cure for these diseases, and once symptoms appear, TSE are invariably fatal.

The TSE family of diseases includes bovine spongiform encephalopathy (BSE); scrapie, which affects sheep and goats; transmissible mink encephalopathy (TME); feline spongiform encephalopathy (FSE); chronic wasting disease (CWD) of deer and elk; and in humans, kuru, both classic and variant Creutzfeldt-Jakob disease (CJD and vCJD), Gerstmann-Straussler-Scheinker syndrome, and fatal familial insomnia. TSE have also been reported in captive exotic ruminants, and in exotic and domestic cats. The agent isolated from several of these cases is indistinguishable from BSE in cattle, suggesting the occurrence of TSE in these species resulted from BSE-contaminated feed.

Bovine Spongiform Encephalopathy (Mad Cow Disease)

Bovine spongiform encephalopathy (BSE), widely referred to as "mad cow disease," was first diagnosed in 1986 in Great Britain and most recently in 2003 in Canada. In December 2003, a single BSE-infected cow was discovered in Washington State. This cow was subsequently traced to Canadian herd. No confirmed case of BSE has ever been found in a U.S.-born animal. The Department continues to work with federal and state partners to conduct surveillance and to prevent the introduction of BSE from foreign sources. During the 2002-03 fiscal year, 287 samples were tested. All were confirmed negative.

Chronic Wasting Disease

Chronic wasting disease (CWD) is a TSE of deer and elk. To date, this disease has been found only in cervids (members of the deer family) in North America. First recognized as a clinical "wasting" syndrome in 1967 in mule deer in a wildlife research facility in northern Colorado, it was identified as a TSE in 1978. CWD is a progressive disease that attacks the brains of infected animals, causing the animals to become emaciated, display abnormal behavior, lose bodily functions and subsequently die. CWD has become of particular concern due to its lack of known prevention and treatment, lack of live animal diagnostic test, and unknown origin and means of transmission. There is no known relationship between CWD and any other TSE of animals or people, and there is no evidence that CWD poses any risk to human health.

On April 9, 2002, the Department issued an emergency rule relating to chronic wasting disease. Current growth

and resultant rapid widespread movement in the cervidae farming industry are increasing the potential for the spread of CWD and other diseases of cervidae. Due to the potential threat CWD poses to Florida's captive and free-ranging cervid populations, the emergency rule enacted a 90-day ban on importation of cervidae from any state or location with reported cases of CWD and a 90-day restriction on importation of cervidae from all other states or locations. A permitting and reporting system was rapidly implemented by the Department to monitor interstate and intrastate movement of cervidae. The final rule for cervidae, 5C-26, became effective on November 27, 2002. This rule requires that all cervidae being imported into Florida originate from a herd that participates in an official CWD surveillance/prevention program and that has been free of CWD for at least 60 months prior to importation.

CWD has been diagnosed in both captive and free-ranging elk, mule deer, white-tailed deer and black-tailed deer located in Canada, Colorado, Illinois, Kansas, Minnesota, Montana, Nebraska, New Mexico, South Dakota and Wisconsin. The Department continues to work with the cervidae industry, USDA, and other state and federal agencies to prevent the introduction of CWD and conduct surveillance in farmed and wild cervidae populations in Florida. Currently, there are approximately 135 cervidae herds enrolled in herd health plans. During the 2002-03 fiscal year, 34 samples were submitted to the National Veterinary Services Laboratory, and all were reported as negative.

Scrapie

Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats.

Florida has a total of 25 flocks enrolled in the Voluntary Scrapie Flock Certification Program, six of which were added this fiscal year, representing a 25 percent increase in enrollment from the previous fiscal year. There are two certified free herds. This is a 200 percent increase during this fiscal year.

During the 2002-03 fiscal year, 134 new scrapie premises identifications were issued, with 124 herds of these participating in the mandatory herd identification program and to which tags were issued, making a total of 19,023 tags distributed. Ten premises are using registration tattoos for identification.

A total of 380 premise identification numbers have been issued to sheep and goat owners in Florida. All of the animals on these premises comply with the federal requirements for official identification of sheep and goats.

prior to movement or sale for breeding, show or exhibition purposes. Currently, 380 of these premises have been issued official scrapie tags with a total of 50,725 tags.

Equine

Contagious Equine Metritis

Contagious equine metritis (CEM) is a highly contagious venereal disease that can affect all equids and is caused by the bacterium *Taylorella equigenitalis*. The infection can result in short term infertility in mares that is sometimes associated with a vaginal discharge and, rarely, abortion. Mares can become unapparent carriers of the bacterium in their reproductive tracts and can shed the organism into the environment and transmit it through subsequent breeding. Stallions do not develop clinical signs but can carry the organism on their genitalia for years and spread the disease by breeding susceptible mares.

CEM is considered an exotic disease in the United States, which means it is not found in the native horse population. However, there are at least 25 countries and territories where CEM exists, including a number of the member states of the European Union. CEM is a serious venereal disease because it is highly contagious. There is no vaccine against CEM, but there are ways to detect infected horses and to rid infected stallions and mares of the bacterium via treatment and testing protocols.

Florida has 23 Approved CEM Quarantine Facilities to handle the CEM importation requirements for horses entering the United States. Last year, 149 imported stallions and mares went through these facilities. One CEM positive stallion was identified.

Equine Infectious Anemia

Equine infectious anemia (EIA), also known as "swamp fever," is an incurable blood-borne disease that affects only members of the equine species. It is transmitted primarily by large biting flies but may also be transmitted by contaminated needles and surgical instruments and through breeding. Once an animal is infected, it remains infected for the rest of its life. While some horses die from acute infections, most remain as seemingly symptomless carriers. However, infected animals are still capable of transmitting the disease and pose a threat to healthy animals. There is currently no vaccine or effective treatment for this disease.

EIA is a disease of worldwide significance. In some foreign countries, the disease incidence may be as high as 50 percent or more. In the United States, it occurs in almost every state; however, 90 percent of the cases occur in what is known as the "hot zone," those states bordering the South Atlantic Coast, the Gulf of Mexico, and the Mississippi River Basin, including Oklahoma and Texas. Disease risk in these areas is higher because environmental conditions are more favorable for prolonged insect vector seasons.

Florida's equine industry continues to be a vital economy to the state, and the Department plays an important role in safeguarding this important state resource from the potential devastating effects of this disease. With support and cooperation from the state's equine industries, Florida was one of the first states to implement an EIA disease control program.

Last year, more than 2.1 million horses were tested for EIA nationally, and 452 positive horses were detected. In Florida, more than 131,200 horses were tested, with only 11 reactors disclosed. On a national level, only 10 to 15 percent of the equine population is tested annually, but in Florida, more than 30 percent of the population is tested. Despite being in the EIA "hot zone," Florida's EIA control program keeps the disease incidence at a very low rate (0.008 percent), which is well below the national level of 0.022 percent. This can be attributed to the Department's effective EIA control program, and strong support from the state's equine industry.

Equine Piroplasmosis

Equine piroplasmosis (EP) is an animal disease caused by the parasitic organisms *Babesia equi* and *Babesia caballi*, and is primarily transmitted to horses by ticks. The greatest risk of introduction of this disease is through importation of horses from counties where EP is endemic.

Florida is the only state that monitors the status of horses imported from Puerto Rico and the U.S. Virgin Islands, where EP is endemic. Florida requires all horses to be negative for EP prior to shipment and to be retested 30 to 60 days after arrival. Last year, the Department issued 40 permits covering 69 horses, with negative results on all tests performed.

Arboviruses

Arthropod-borne viruses (arboviruses) are viruses that can be transmitted to humans and horses by mosquito bites. Arboviral infections in humans and horses may result in development of a fatal case of encephalitis: inflammation of the brain and spinal cord. These viruses are maintained in nature through continuous transmission between natural reservoir hosts (primarily wild birds) and certain species of mosquitoes (disease vectors). Humans and horses do not contribute to the spread of these diseases and, as such, are considered "dead-end" hosts. Although other animals are susceptible to arbovirus infections, humans and horses are most susceptible to developing clinical disease.

Eastern Equine Encephalomyelitis

Eastern equine encephalomyelitis (EEE) is one of several arboviruses transmitted by infected mosquitoes that may cause fatal encephalitis in humans and horses. Mosquitoes become infected with the virus after feeding on wild birds. Transmission of EEE from horse to horse or horse to human via mosquito bites is unlikely because humans and horses are poor reservoirs for the virus. In humans and horses, the mortality rate is extremely high: 50 percent or more in humans and 80 to 90 percent in horses.

EEE is most often detected in horses during the months of May through September. Each year, Florida reports 25-50 cases throughout the state. Many of these cases appear in the same areas year after year. Mosquito activity in Florida may occur on a year-round basis; therefore, cases of EEE may be reported during any given month. About every seven to 10 years, the number of cases reported reaches epidemic proportions and may be well over 100. In 2003, the number of cases reached epidemic levels during the first seven months. From March through July, more than 180 cases of EEE were reported. The last epidemic reported was in 1992 when more than 200 cases were reported for the year.

There is an effective vaccine for horses against EEE

and when given appropriately will protect horses from getting the disease. Because horses in Florida are at risk to infected mosquitoes on a year-round basis, horses should be vaccinated at least three times a year.

West Nile Virus

West Nile virus (WNV) is another mosquito-borne viral disease that may cause encephalitis in humans and horses, but unlike EEE, the clinical course of the disease is not as severe, and mortality rates are much lower: 25 to 30 percent in horses and less than 10 percent in humans.

WNV is commonly found in wild birds, humans and other vertebrate animals in Africa, Eastern Europe, Western Asia and the Middle East, but until 1999 had not previously been documented in the Western Hemisphere. During the late summer of 1999, WNV was identified in New York City for the first time. By the end of the year, cases in wild birds, humans and horses had been documented in three Northeastern states. The virus survived the winter, and during 2000 continued to spread to 12 Eastern coastal states.

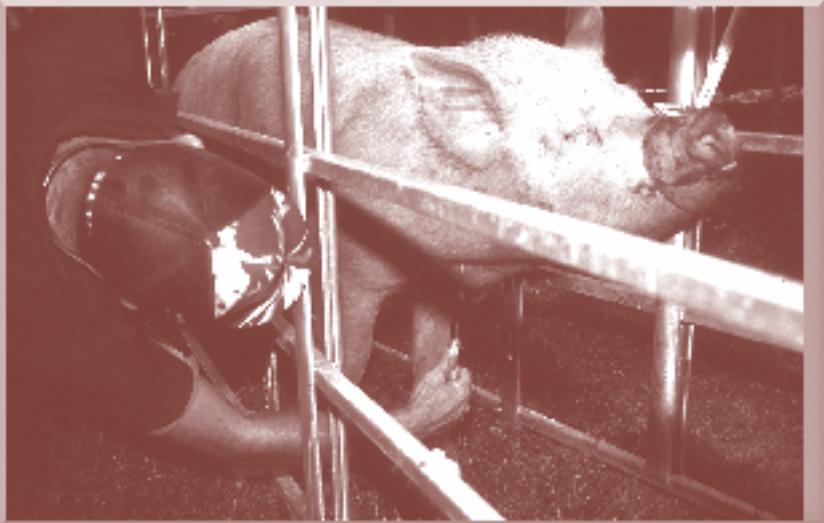
By 2001, the virus had spread to 18 states, including Florida. More than 730 equine cases were confirmed, with 156 fatalities. Florida alone reported 492 cases with 82 deaths. Additionally, 10 states reported 62 human cases, resulting in nine deaths. In 2002, WNV expanded rapidly westward. Almost 1,500 equine cases were reported in 40 states. Approximately one-third of the affected horses died. Florida reported 499 cases with 92 deaths. Nationally, there were more than 4,000 human cases with 284 deaths reported. Florida had 28 human cases with two deaths.

In October 2000, a conditional licensed WNV vaccine was released for sale in the United States. The vaccine was used extensively in areas where virus activity was high. More than 5 million doses of vaccine have been used in horses, and vaccine received its fully licensed status in February 2003.

The Department continues to work closely with its other Arboviral Working Group partners to provide valuable surveillance data on equine cases. The EEE/WNV Equine Database has been an invaluable tool in tracking these diseases and reporting them to the working group in a timely manner. Early detection and reporting of arboviral cases help to warn citizens to take precautions against mosquito bites and to remind horse owners to ensure that their horses are appropriately vaccinated.

Swine

During the year, 21,174 total swine were inspected at livestock markets. In the field, 24,676 swine were inspected, with 642 head tested for swine brucellosis and pseudorabies.



Swine Brucellosis

The Department has discontinued the testing of slaughter swine for brucellosis at livestock markets as part of the National Swine Brucellosis Eradication Program. Instead, a slaughter surveillance program, in the process of development, is slated for the near future. Swine are still tested on farms if they wish to achieve Qualified/Validated status or Modified-Monitored/Validated status, provided they pass a risk assessment, which is administered by program individuals.

Pseudorabies (Aujeszky's Disease)

During the year, the Department continued to make progress toward eradication of Pseudorabies. Florida is currently in Stage III Status.

Garbage Feeders

During fiscal year 2002-03, the Department licensed 118 garbage feeders and conducted 3,179 garbage feeder inspections. That same year, 158,417 garbage-fed swine were inspected for contagious and infectious disease in Florida.

Cervidae

Florida's captive cervid industry continues to grow. While this industry is licensed primarily by the Florida

Fish and Wildlife Conservation Commission (FWC), the Department is a partner working with disease control issues and importation policies. The Department also works with owners of captive cervid herds on disease management programs.

The USDA has begun a transition to incorporate captive cervid herds into each state's disease status for bovine brucellosis and tuberculosis. To meet these more stringent surveillance and disease control guidelines, management solutions must be developed for disease testing and eradication in cervid herds. The Department works with owners and managers of captive cervid herds to develop and maintain herd management strategies and herd health plans.

Since diseases affecting deer and elk often impact cattle, sheep, goats and other livestock populations, current and future disease eradication programs must incorporate all affected species. The Department works closely with FWC and other agencies to develop comprehensive disease management strategies that take into account both domestic and wildlife populations.

The Department continues to monitor the status of certain diseases affecting cervidae in other regions of the United States. Specific issues of concern are 1) Michigan's ongoing battle with tuberculosis in their cervid and bovine populations, and 2) chronic wasting disease in deer and elk in western states.

Reptiles and Amphibians

The Department began a working relationship with the reptile industry in Florida and the United States in 1999 to address concerns about exotic ticks coming into the state on reptiles imported from foreign countries. Since then, the Department has gained a great deal of experience in working with these species and has collaborated with the reptile community to develop Best Management Practices for the industry.

Performing Elephants

Florida is the winter home for many circus road shows, and the retirement home of an aging elephant population. Like other mammals, elephants are susceptible to a number of zoonoses, and like other performers, elephants often have contact with the general public. This contact between elephants and humans provides an opportunity for transmission of diseases such as tuberculosis. Collaborating with USDA, the Department monitors elephant facilities in Florida to ensure regular testing and trunk washes to detect

disease as well as management practices that prevent the spread of disease among elephants, humans, and other animals.

Diagnostic Laboratories

Due to its extensive coastline, hospitable climate, and importation of an increasing number of non-native animal species, Florida occupies a critical position in the nation's agricultural picture. The importation of animals poses the constant threat of the introduction of diseases, and the continued threat of terrorism raises concerns about the state's vulnerability to deliberately introduced biohazards. To meet these challenges, the Department's Diagnostic Laboratories are staffed with veterinarians and technicians who are highly trained in a range of diagnostic disciplines, including bacteriology, virology, molecular biology, toxicology, parasitology, and pathology.

Thirty-seven diseases are considered potentially harmful to Florida's animal industry or the general public and are listed as reportable to the Department. In addition to the monitoring and surveillance of animal diseases, the laboratories also provide thousands of tests each year for diseases of public health significance, such as Lyme disease, Rocky Mountain spotted fever, chlamydia (psittacosis), toxoplasmosis, giardiasis, salmonellosis, and anthrax.

The Diagnostic Laboratories at Kissimmee and Live Oak comprise a laboratory system certified by the American Association of Veterinary Laboratory Diagnosticicians (AAVLD) as an all-species, full service laboratory system. AAVLD certification is recognized worldwide.

Funding/Fees

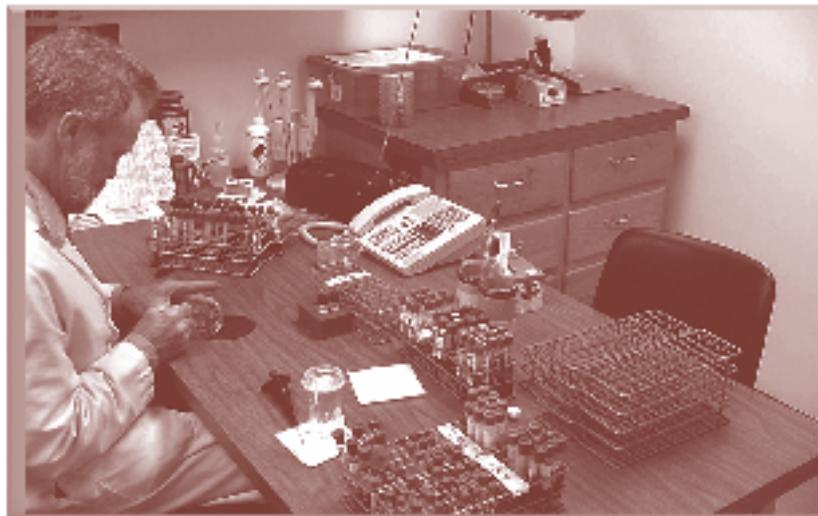
The Bureau of Diagnostic Laboratories received \$478,778 in Operating Capital Outlay funds for replacement equipment in the laboratories. Use of those funds is ongoing, and replacement equipment purchased during fiscal year 2002-03 included ELISA microplate washer and reader, biological safety cabinets, gas chromatograph/mass spectrophotometer (GCMS), microscopes, histopathology equipment, incubators, centrifuges, ultra-temperature freezers, immunohistochemistry equipment, and autoclaves.

The Diagnostic Laboratories processed almost 100,000 submissions, which comprised almost 1 million procedures this year. Fees generated in fiscal year 2002-03 increased nearly 60 percent.

Kissimmee

A major facility in Florida's work on animal disease diagnosis and control in fiscal year 2002-03, the Kissimmee Diagnostic Laboratory began construction on the laboratory's first Level 3 Biosafety Laboratory. This laboratory addition will provide rapid diagnostic procedures for diseases that do not exist in the United States or are a result of bioterrorism. This facility is expected to be completed and certified for use in early 2004. This initiative was also recognized by the USDA, which designated the Kissimmee laboratory as a part of a pilot national laboratory system. This initial program identified 12 laboratories across the United States to augment the National Veterinary Services Laboratory (USDA) in Ames, Iowa and the Foreign Animal Disease Diagnostic Laboratory (USDA) at Plum Island, New York. This laboratory network is to provide increased Homeland and Domestic Security both in Florida and the nation.

The initial target diseases are Foot-and-Mouth Disease, Exotic Newcastle Disease, Highly Pathogenic Avian



Influenza, Classical Swine Fever (hog cholera), African Swine Fever, Rinderpest, Contagious Bovine Pleuropneumonia, and Lumpy Skin Disease. Laboratory staff is receiving training on methods using new procedures.

The mosquito-borne disease, West Nile virus, continued to be problematic this year. Since West Nile virus is in a different class of viral agents, new diagnostic assays were developed to address this challenge. The laboratory, in conjunction with laboratories across the country, developed an antigen capture ELISA to diagnose the disease. The Kissimmee Diagnostic Laboratory in conjunction with the Florida Department of Health monitors this disease as

well as other traditional mosquito-borne diseases (arboviral diseases) such as Eastern Equine Encephalomyelitis.

Evaluating the spread of arboviral diseases in animals affords public health officials a barometer of impact to humans. New tests allowed the laboratory to confirm the diagnosis of these diseases when conventional diagnostic tests were unable to differentiate between background immunization blood levels and actual disease.

The Virology Section continued to lead the laboratory in the number of cases received, with almost 73,000 submissions. In addition, the laboratory performed over 72,000 tests for equine infectious anemia (EIA).

The Bacteriology Section continued the development of various culturing and diagnostic methods to better differentiate between various pathogens and environmental contaminants.

The Aquaculture Section continued to work on various emerging diseases, which have serious impacts on both fresh and saltwater aquaculture species. Spring viremia of carp (affecting ornamental fish) and large mouth bass virus (affecting freshwater bass) were the target pathogens this fiscal year. Aquaculture species necropsy service was initiated this year which will benefit this emerging industry in Florida.

The Toxicology Section acquired a new gas chromatograph/mass spectrophotometer to enhance capabilities in developing test methods for various toxicological agents, allowing for better analysis of specimens from cases where pesticides are suspected to cause death in animal species.

The Pathology and Histology sections continued to provide critical diagnostic services to various animal commodity groups. Development of diagnostic procedures using immunohistochemistry techniques has continued, and the lab now has the capabilities to provide surveillance for emerging diseases, such as chronic wasting disease.

Live Oak

The Live Oak Diagnostic Laboratory provides essential diagnostic services for many animal industries. In 2002-03, the Live Oak lab provided critical diagnostic services during the outbreaks of WNV and EEE in horses as well as providing critical disease surveillance for Florida's poultry industry. Methods were developed using Polymerase Chain Reaction (PCR) technologies to provide rapid diagnostic support for Exotic Newcastle Disease and Avian Influenza, and Florida continues to remain free of both diseases. Live Oak continues to serve as the focal point for program diseases such as brucellosis, pseudorabies, and Johne's Disease as established by the Division of Animal Industry and the USDA.

The staff at Live Oak performed over 307,000 program-related tests in cattle, swine, and other species during the 2002-03 fiscal year. More than 87,000 of the submitted samples were from Florida slaughterhouses. No exposure was discovered, and Florida retained its brucellosis-free status.

Feed, Seed and Fertilizer

The Department is responsible for the collection and analysis of seed and fertilizer samples to determine compliance with state standards and label guarantees, and to conduct a certification program for feed laboratories. It performs establishment inspections, collects samples for analysis and issues enforcement actions. It also performs analyses on regulatory samples submitted by inspectors throughout the state.

The Department maintains a leadership role in determining compliance of regulated businesses with existing laws and demonstrates adaptability to an ever changing agricultural and consumer environment. The Department is staffed with highly trained, professional personnel and utilizes the most advanced technology available. This combination ensures quality analytical results while maximizing efficiency and productivity. The objectives of these programs have remained the same through the years: to ensure that consumers receive quality products, to provide a level playing field for all manufacturers and to promote environmental stewardship. Additional information may be obtained by visiting the Department's web page at www.doacs.state.fl.us/~aes-fsflab.



Feed

Animal feeds are regulated through the laboratory analysis of samples by government certified labs. Registrants, including ingredient suppliers, are required to submit samples of their products to Department-certified laboratories for testing. Results from these sample analyses are reported to the State Feed Laboratory, where compliance with Chapter 580, Florida Statutes, is determined. Appropriate regulatory action is taken by the Department. Eight certified laboratories and 650 feed companies are participating in the program. A total of 2,100 samples were submitted and analyzed, with 58 violations in one or more categories. This represents an overall violation rate of 2.8 percent. Limited inspection, sampling and laboratory evaluation oversight was conducted to verify compliance with the feed program. Nine consumer complaints or requests were investigated, and 168 administrative fines were levied totaling \$94,614.

Bovine Spongiform Encephalopathy (BSE), first identified in 1986 in the United Kingdom and sometimes referred to as Mad Cow Disease, is a fatal disease that causes progressive neurological degeneration in cattle. It is one of a family of diseases called TSEs, or transmissible spongiform encephalopathies, named for the sponge-like gaps that develop in the brain tissue of diseased animals or people. One TSE disease that affects humans is called Creutzfeldt-Jakob Disease (CJD). The new form of the disease, variant CJD (vCJD), is related to the BSE disease of cattle. There is strong scientific evidence that the prion agent that causes BSE in cattle is the agent that causes vCJD in people. So far, there have been numerous cases of vCJD reported in the United Kingdom and elsewhere in Europe, believed to occur in people who consumed beef products contaminated with the infective BSE agent. There are no reported cases of BSE or vCJD in the United States. To ensure that this disease does not enter Florida, the Department extended its contract with the Food and Drug Administration (FDA) to conduct feed mill and ruminant feeder inspections. The focus of these inspections was prevention of the establishment and amplification of BSE by ensuring that no mammalian protein was used in feed for ruminant animals such as cows and sheep. A total of 75 BSE inspections were performed resulting in no apparent violations. These inspections to emphasize feed safety will continue throughout the next fiscal year. The Feed Laboratory received funding to analyze feed products for prohibited animal products. Laboratory personnel analyzed 96 samples and found no violations in ruminant feeds.

Seed

The seed program is administered to ensure that Florida consumers have a source of high quality, genetically pure seed. Samples of agricultural, vegetable and flower seed are collected and analyzed for purity, germination and compliance with Chapter 578, Florida Statutes. Commercial seed samples are tested on a fee basis to determine seed quality or accurate labeling information. During the fiscal year, 1,961 seed dealer licenses were issued and 4,275 official seed samples were collected. Laboratory personnel analyzed 4,406 official and commercial seed samples, requiring 78,052 determinations. They determined that 15.4 percent of the samples were mislabeled and 7.2 percent were illegal.

The Seed Investigation and Conciliation Council serves to assist farmers and agricultural seed dealers in determining the validity of complaints made by farmers against dealers and to recommend cost damages resulting from the alleged failure of the seed to produce as represented by the label on the seed package. This council received six complaints this year, four of which are currently pending. Two of the complaints investigated resulted in recommended damages totaling \$144,571.

Tropical Soda Apple has proven to be a formidable invasive noxious weed. Since its detection in the late 1980s, this invasive weed has infested more than 1 million acres in Florida. On June 19, the Seed Technical Council developed and adopted voluntary best management practices for seed producers/harvesters that can be implemented on an industry-wide basis to prevent the contamination of seed products grown in Florida. The Department is sponsoring workshops to inform and educate stakeholders about the management of Tropical Soda Apple, and is seeking their assistance in signing the voluntary compliance agreement for the management of this invasive weed.

Fertilizer

The fertilizer program is considered to be one of the most innovative programs in the nation. Official samples of commercial fertilizer and agricultural liming materials are collected and analyzed to ensure that they meet the standards set in Chapter 576, Florida Statutes. This program provides a model for new fertilizer analytical methodologies. The laboratory has developed and implemented new methodologies to accommodate evolving needs in the areas of nutrient availability in controlled-release fertilizers and micro-nutrient solubility.

Emerging issues such as heavy metals in fertilizers and nutrient best management practices are also administered under this program. The Fertilizer Material Assessment Advisory Group scientifically evaluates all new fertilizer materials before they are allowed into the Florida marketplace. No new materials were reviewed by this group during this fiscal year. The laboratory also analyzes commercial samples, on a fee basis, to determine compliance with label guarantees.

There were 7,541 fertilizer samples analyzed during this fiscal year, of which 1,280 were found to be deficient in one or more plant nutrients. The laboratory performed 180,437 determinations on these samples. The overall deficiency rate was 17.0 percent. As a result of excessive deficiencies, 10 licensees were placed on probation, and penalties and fines totaling \$259,102 were levied, with \$198,467 of that total returned to consumers. There were 477 licenses issued for the sale of fertilizer in Florida. Additionally, 1,281 brands and grades of specialty fertilizers were approved for distribution. Nearly 2.1 million tons of mixed fertilizer and fertilizer materials were reported sold in the state.

The fertilizer laboratory performed 13,772 analyses for non-guaranteed trace metals in fertilizer products. None of the fertilizers analyzed exceeded the established tolerances for these metals. A total of 2,598 environmental water samples were analyzed for nutrient content for other divisions in the department. There were 20,309 determinations performed on these samples.

Agricultural Law Enforcement Interdiction Stations

The Office of Agricultural Law Enforcement's interdiction stations are Florida's first line of defense in the protection of its agriculture. The Department operates 22 agricultural interdiction stations located on all the paved highways crossing the natural boundary of the Suwannee and St. Mary's rivers. Agricultural vehicle inspections are conducted at each location around the clock, 365 days a year, by 199 law enforcement personnel and a support staff of 10 individuals.

These officers support and supplement all of the Department's regulatory and law enforcement programs by conducting inspections of highway shipments of agricultural, horticultural, aquacultural and livestock commodities. These regulations and programs ensure compliance with Federal-State Marketing Agreements as well



as laws, rules and regulations enacted to make certain the public receives quality food products. Programs are also designed to prevent, control and eradicate specific plant and animal pests and diseases that could economically devastate segments of Florida's agricultural industry.

Border security is one of the cornerstones of Florida's domestic security initiative, and increased vigilance by Department law enforcement officers has strengthened Florida's surface border protection. The implementation of the initiative has resulted in strategies which included:

- Performing interdictions on all commercial traffic and non-conventional trucks, including rented trucks entering and exiting the state.
- Photographing transporters hauling dangerous commodities entering all interdiction stations and utilizing real-time imaging of documents.
- Deploying mobile gamma ray technology to enhance detection of plants, pest or animal disease, and safeguarding Florida against agri-terrorism and contraband smuggling.
- Using canine teams, specially trained to detect illegal plant and animal material.
- Increasing fiber-optic inspections on commercial and non-conventional trucks to ensure safe products.
- Conducting area threat assessments and safety surveys that are compiled into a centralized database and offered as an informational resource to local, state and federal agencies.
- Maintaining a 24-hour toll-free hotline to report suspicious inbound or outbound commercial vehicles, as well as other agri-terrorism issues.
- Increasing staffing at all interdiction stations, which resulted in the identification of over 250 illegal aliens who attempted entry through concealed means

as well as the recovery of \$1.4 million of stolen property and dangerous contraband.

This fiscal year, the Florida Legislature approved the funding of new and aggressive technologies to be deployed by Department officers at interdiction stations, including additional mobile gamma-ray cargo inspection systems that scan commercial vehicles and containers and produce live images that can help officers identify suspicious loads that may warrant closer physical inspections.

Additionally, the Department, in cooperation with the U.S. Department of Agriculture's National Detector Dog Training Center, began deploying detection canines at various interdiction stations. These specially trained dogs detect animal and plant materials that may harbor infectious diseases that could be harmful to Florida's farming community as well as to public health. The Florida Legislature approved funding for additional canine teams to be trained and deployed by the Department.

To facilitate movement of commercial highway traffic, the Office of Agricultural Law Enforcement entered into a public/private partnership with the Florida Department of Transportation and private enterprise, to provide commercial carriers with the Prepass™ electronic identifier which may allow some vehicles to bypass interdiction stations, reducing station traffic and allowing Department officers to concentrate their efforts on specific carriers of agricultural, horticultural, aquacultural, and livestock commodities. Currently, electronic Pre-Pass is located at all interstate interdiction stations.

During fiscal year 2002-03, Department officers conducted 10,837,514 vehicle inspections, that detected 6,436 violations, which resulted in 1,903 arrests, 1,934 warnings, and 2,599 administrative actions. Additionally, officers expended 1,203 staff-hours dedicated to the Citrus Canker Eradication Program.

During times of natural disasters, Department officers function as members of Florida's Mutual Aid Response Team, participating in relief efforts to ensure that devastated areas receive adequate law enforcement protection.

The Department also cooperates with federal, state and local governmental agencies on projects, both criminal and non-criminal, which either improve the efficiency of agricultural programs or generate additional revenues to the state without increasing costs to Florida's citizens.

Department officers collected and provided the Florida Department of Revenue with 113,372 bills of lading pertaining to certain types of cargo entering Florida. These efforts resulted in an additional \$15,054,541 in sales and

use taxes being collected by the state during fiscal year 2002-03 that would have otherwise gone uncollected. This cooperative effort not only greatly enhances the state's ability to collect sales and use taxes but also precludes out-of-state contractors and businesses from gaining an unfair competitive advantage over Florida entrepreneurs. Since the inception of the program in April 1993, this cooperative effort has resulted in the detection and collection of over \$100 million in otherwise undetected sales and use tax.

Bureau of Investigative Services

The Department's Bureau of Investigative Services operates 18 field offices throughout the state staffed by 40 law enforcement personnel who are responsible for conducting criminal investigations and patrolling state lands managed by the Department.

The Bureau of Investigative Services works closely with consumers, the agriculture industry, and other law enforcement investigating criminal cases that involve consumer fraud, timber theft, citrus theft, wildfire arson, livestock, equipment theft and aquacultural crimes. In addition, the Department takes a proactive role in the prevention of consumer fraud, wildfires and other agricultural crimes through education and training. By working with consumers, the citrus industry, the Florida Cattlemen's Association and other entities, the Department assists in the statewide efforts to reduce the number of consumer and agriculture-related crimes.

In fiscal year 2002-03, the bureau initiated 2,007 criminal investigations throughout the state.

Fire	473
State Lands	897
Consumer Crimes	29
Livestock	62
Intelligence	17
Timber Theft	27
Agricultural Equipment	13
Citrus	6
Aquaculture	36
Farm Products	7
Uniformed	127
Agency Assist	75
Pesticide	6
Miscellaneous	232
TOTAL	2,007

In addition to traditional agricultural investigations, the Department receives hundreds of complaints regarding fraudulent activity in telemarketing, solicitations of charitable contributions, motor vehicle repair, business opportunities, health studios, and sellers of travel. Each year, millions of dollars are fraudulently taken from Florida citizens, and more and more Department resources are being channeled into the investigation of these types of crimes.

Florida currently has 19,715 registered auto repair shops. The Department continually monitors complaints on repair shops, initiates criminal investigations, and conducts sting operations on suspected fraudulent repair practices. This has resulted in a number of arrests for criminal violations and the closing of repair shops that were found to be defrauding the consumer.

The Department also patrols more than 1 million acres of state lands and forests, providing law enforcement protection of natural resources and investigating crimes regarding wild fire arson, vandalism, violent disturbances, and missing persons. This past fiscal year, investigators expended 15,099 staff-hours and covered 177,315 miles, patrolling and protecting state lands and forests. This presence also acts as a deterrent to these and other violations that occur on state lands.

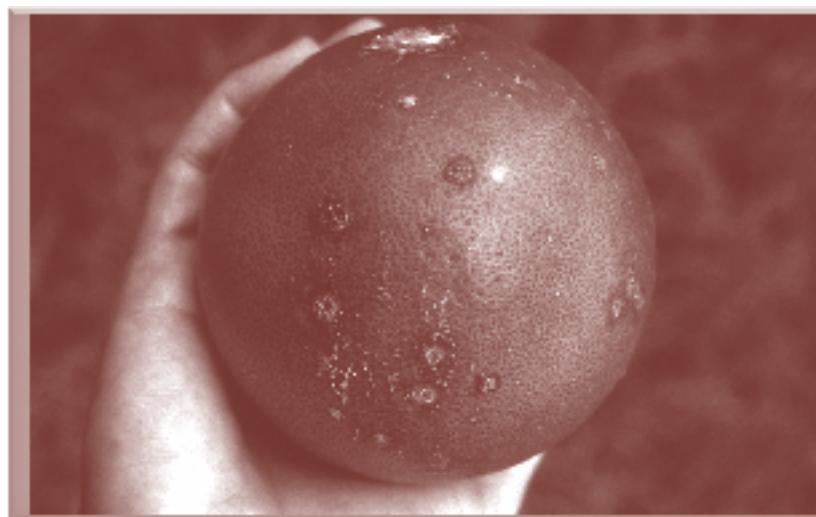
The Bureau of Investigative Services conducted dignitary security for the Commissioner and his staff as well as threat assessments of facilities occupied and or managed by the Department and threat assessments of regulated entities to include fertilizer, pesticides, food distribution points and petroleum distributors. The bureau is a member/participant in a joint response team comprised of the Department of Health and the Department of Environmental Protection, which is responsible for the investigation of crimes relating to bio-terrorism statewide. The bureau is also an active member in all seven regional Domestic Security Task Forces statewide, and is engaged in a cooperative partnership with all federal, state, and local agencies in all 67 counties.

The bureau provides support to the Department's regulatory and enforcement programs such as the Citrus Canker Eradication Program. The bureau also cooperates and works with federal, state and local governmental agencies in a number of criminal and regulatory projects as well as providing emergency protection and routine security for the Commissioner, the Commissioner's staff, and visiting state, national, and international dignitaries. In addition, the bureau also provides risk management to all Department facilities and their employees.

Plant Protection, Inspection and Certification

Citrus Canker Eradication Program [as of June 2003]

Florida is currently fighting Asian strain bacterial citrus canker in 15 counties: Brevard, Broward, Collier, DeSoto, Hendry, Highlands, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Palm Beach and Sarasota. In all areas where citrus canker is present, diseased trees are confirmed positively infected by on-site plant pathologists. The movement of citrus plant material from



quarantine areas is prohibited, though citrus fruit may move under certain conditions when certified by the Department. All positive trees and exposed trees within 1,900 feet are destroyed, as there exists no cure or effective treatment for citrus canker. In January 2000, the Citrus Canker Eradication Program (CCEP) began 1,900-foot removal of exposed trees, which captures more than 95 percent of disease spread from infected trees and is based on a two-year epidemiological study in Miami-Dade and Broward counties. On February 11, 2000, the governor declared a state of emergency for canker-infected counties and allocated additional funding for eradication; funds have also been allocated for a statewide citrus canker survey. Mandatory statewide decontamination procedures began April 1, 2000. On March 18, 2002, the Governor signed the 1,900-foot rule into Florida law.

Total trees destroyed to date statewide:

Residential	631,671
+ Grove	1,773,511
Total	2,405,182

Miami-Dade, Broward and Palm Beach counties

Quarantine area total: approximately 1,115 square miles, expanded May 12, 2003.

Citrus canker was detected in the Westchester/Sweetwater areas of Miami-Dade County in October 1995. It has now spread into 407 square miles in Miami-Dade and 275 in Broward County. Since October 1995, control action has been taken on approximately 250,936 properties. A total of 613,980 infected and exposed trees in 712 sections in Miami-Dade/Broward/Palm Beach/Monroe counties have been removed to date. Various legal challenges since November 2000 have restricted the CCEP from cutting exposed trees in South Florida, but court rulings in early 2003 have upheld the Legislature's mandate for 1,900-foot exposed tree removal. On January 5, 2000, citrus canker was found in commercial lime groves in Florida City; to date 430,149 grove trees on 3,101 acres have been uprooted and burned. The southern portion of the South Florida quarantine zone was expanded by 64 square miles in May 2003 to cover recent positive grove finds in western Miami-Dade County.

Palm Beach County

Quarantine area: 51 square miles (included in total South Florida quarantine).

Asian-strain citrus canker was detected for the first time in November 1999. In addition, both CCEP and independent research scientists have determined that an unusual genotype of canker (Wellington strain) is responsible for infecting more than 60 trees (mostly key lime) on 41 residential properties across nine square miles. All positive trees infected with this novel strain have been destroyed, and most detections in the county continue to be isolated incidences of Asian-strain canker (Miami genotype) originating from Miami-Dade and Broward.

In October 2002, U.S. Department of Agriculture sentinel surveyors found three positive trees on two properties in the city of West Palm Beach; more positive trees were found in Boca Raton and west of Lake Worth. State inspectors using search warrants quickly began inspecting the various 1,900-foot radii; countywide, 100 total infected trees on 59 properties across 13 square miles were detected in 2002, and all positive trees were destroyed. To date, 10,211 trees in 28 sections have been destroyed in the county with homeowner permission.

A 51-square-mile quarantine area is in effect in Palm Beach County as of May 2003, and is divided into two

areas: a 10-square-mile zone in West Palm Beach, and a 41-square-mile zone around Boca Raton, just north of the Palm Beach County/Broward County line.

Monroe County

No quarantine area.

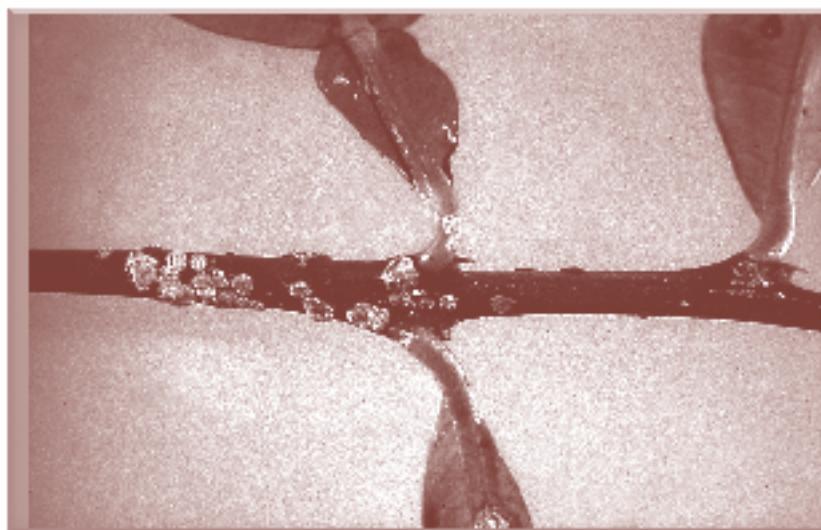
In June 2002, three positive trees on two properties were discovered across two square miles on Big Pine Key. The three positive trees were removed with the property owner's consent, and no more positive trees have been detected in the county.

Manatee County

Quarantine areas: Bradenton, six square miles; Duette (II), 16 square miles, effective February 26, 2003.

Quarantine Area Removals: Duette (I), 41 square miles, lifted March 15, 2002.

Citrus canker was detected in May 1997 in two groves off Interstate 75 near Palmetto. A total of 850 acres have been found positive for citrus canker: 738 commercial and 112 abandoned acres. To date, 89,018 acres grove trees on 1,260 infected acres have been destroyed. In October 2001, one exposed and two positive trees were found and destroyed on two adjacent residential properties just outside the western quarantine boundary in Bradenton. On the 411 properties with citrus trees within 1,900 feet, 1,076 trees were destroyed in control action completed in February 2002. On August 9, 2002, the Palmetto/Bradenton quarantine area was reduced from 83 to six square miles, an area that will remain in effect until October 2003, barring any new finds. To date, a total of 6,354 residential trees have been removed.



Duette (I) In July 1999, 38 positive trees were found about four miles west of Duette and burned in place; seven exposed acres were also destroyed. Additional positive and exposed trees were detected and destroyed in September and December 1999 and February 2000; a total of 8,390 trees on 85 acres were destroyed. On March 15, 2002, all restrictions in the 41-square-mile Duette quarantine area were lifted.

Duette (II) On January 14, 2003, five positive trees were detected in a grove about 1.5 miles south of the 1999 find. A total of 9,174 trees on 126 acres were destroyed in control work completed May 13, 2003. A 16-square-mile quarantine is in effect as of February 2003.

Collier County

Quarantine areas: Sunniland, 24.5 square miles (reduced January 2003 from 52 square miles); Golden Gate City, 9.5 square miles.

In June 1998 citrus canker was detected in the Indian Lake Grove, 12 miles southeast of Immokalee. Since then, a total of 1,910 acres have been destroyed in the Sunniland quarantine area. To date, 20 residences in Golden Gate City have infected trees: 33 positive and 2,788 exposed trees have been destroyed onsite since the first find in April 2000. Also, four residences at Golden Gate Estates have had 10 positive and 45 exposed trees destroyed since the first find in December 1999. In October 2000, 10 positive trees were destroyed in a grove just north of previously positive Summerland grove; 142-acre control action is complete. Also, eight potted residential trees in the Sunniland quarantine zone have been destroyed to date.

In January 2001, 32 positive trees were found in Ranch One; also, two positive grapefruit were detected in the Collier Company grove. On both sites, the 1,900-foot control action is complete. In December 2001, six positive and two exposed trees were destroyed on two residential properties in Lely Estates, east of Naples.

Control totals to date: 282,334 grove trees on approximately 1,947 commercial acres (including 37 abandoned acres) and 2,892 residential trees destroyed.

Hendry County

Quarantine areas: Siboney, 36.5 square miles (reduced February 2003 from 85.5 square miles); Montura Ranch, 16 square miles; Medusa, 19 square miles. Quarantine area removals: Star-Glo, lifted November 1, 2002, 30 square

miles (portions in North Collier County); Big Cypress Seminole lifted March 12, 2003, nine square miles.

In February 1999 citrus canker was found in the Siboney Grove; the entire 622-acre grove has been destroyed. Since then, approximately 930 acres have been destroyed on five additional infected groves on the east and south outer fringe of the southwest Florida citrus area. To date, nine residences at Montura Ranch Estates have had infected trees — 40 positive and 923 exposed trees have been destroyed since the first find in June 1999. In late July/August 2000, 132 positive trees were burned in place in a grove just west of the Star-Glo quarantine area; 275 surrounding acres have been destroyed. In October 2000, 33 positive trees were detected in a previously positive grove within the Star-Glo quarantine area; 594 acres have been destroyed. In December 2000, 2,576 positive trees were confirmed in the County Line Grove just east of the Siboney quarantine area; control action is complete. Also that month, two positive dooryard trees and 20 exposed trees at one Siboney Estates residence were destroyed. On August 31, 2001, citrus canker was found in a large grove just south of the Siboney quarantine area; 19 infected trees and 58 exposed trees were burned in place on 342 acres. On July 19, 2002, 121 positive trees were detected in the 1,700-acre Medusa Grove; the grove owner agreed to the removal of 36,118 trees on approximately 337 acres; control action is complete. A 19-square-mile quarantine area is in effect since August 2002.

Control totals to date: 734,527 grove trees on approximately 4,663 commercial acres (including 479 abandoned acres) and 1,106 residential trees destroyed.

Hillsborough County

Quarantine area lifted February 12, 2002.

Citrus canker was detected in November 1999 in the Sun City Center area of southern Hillsborough County. Survey revealed a total of 57 positive and 46 exposed trees on 27 properties across four square miles. On 1,065 residential properties, 2,045 dooryard trees were destroyed. In December 1999, 8,500 grove trees on 102 high-risk abandoned acres near the county line were destroyed; 1,766 additional grove trees were destroyed August 2000 for a total of 10,266 trees on 117 acres. No citrus canker detections were made in Hillsborough County after December 1999, and the quarantine zone was lifted on February 12, 2002.

Martin County

Quarantine area: 12 square miles.

On September 2001, citrus canker Asian-strain was detected in a commercial citrus grove in south Martin County, approximately 1.5 miles north of the Palm Beach County line. Multiple grapefruit trees in an eight-acre block close to Interstate 95 were infected. Positive and uninfected adjacent trees were immediately removed with the cooperation of the property owner. It is believed that the infection was spread by contaminated harvesting and/or maintenance equipment. A total of 16,870 trees on 138 acres of surrounding grove were removed, and control action is complete. A survey is ongoing. To date, no residential trees have been removed.

A 12-square-mile quarantine area is in effect in southeast Martin County as of November 8, 2001. No citrus trees or citrus plants may be moved from, and no citrus trees may be planted in, the quarantine zone.

DeSoto County

Quarantine area: Arcadia, 58 square miles (expanded from 53 square miles March 12, 2003).

On October 5, 2001, citrus canker was detected in a 200-acre orange grove in DeSoto County northeast of Arcadia. Numerous trees (mostly Valencia) within the grove were infected, and more positive trees were detected during a delimiting survey in a 90-acre block across the road. It is believed that the infection was spread by contaminated equipment or personnel. Additional detections were made nearby, and control action was completed on November 5, 2001. Approximately 692 acres (77,993 trees) were destroyed with the owner's cooperation.

On December 14, 2001, surveyors found more citrus canker in a 200-acre grove 1.5 miles south of the quarantine zone. Control action was immediately undertaken with the grove owner's cooperation, and a total 41,045 trees on approximately 282 exposed acres were removed.

On January 11, 2002, citrus canker was confirmed in a grove about 1.5 miles west of the current quarantine zone. All 29 positive trees were destroyed, and a total of 6,464 trees on 59 acres were removed. In February 2002, the Arcadia quarantine area was expanded from 33 to 54 square miles to allow for these new finds; in October 2002, one square mile in the southeast corner was released from quarantine.

On February 13, 2003, 57 positive trees were detected in a grove south of Highway 760. A total of 39,447 trees on 417 acres were removed, and control action was completed on May 24, 2003. The DeSoto quarantine area was expanded to 58 square miles in March 2003 due to this find.

On April 24, 2003, 63 positive trees were detected in a grove inside the current quarantine area. A total of 18,661 trees on 142 acres have been destroyed, and control action was completed June 14, 2003.

A total of 142,683 trees on 1,269 acres have been removed to date in the county. No residential trees have been destroyed.

Brevard County

No quarantine area.

Asian-strain citrus canker was confirmed on four residential trees on two adjacent properties in Palm Bay, south of Melbourne, on January 25, 2002. The infected trees were immediately destroyed and inspection of trees on surrounding properties within two square miles of the initial detection turned up no further positive trees. Control action on exposed trees within a 1,900-foot radius with the voluntary cooperation of area homeowners is complete: 985 trees on 308 properties in Palm Bay were destroyed.

Citrus canker was detected at a Cocoa residence in May 2002, approximately 37 miles north of the Palm Bay outbreak. Two other sentinel survey properties within a quarter mile of the infected property had been inspected three times in the previous year with negative results. Four infected and 21 exposed trees were destroyed immediately, and 146 trees on 33 properties within 1,900 feet have been destroyed to date; control action is nearly complete. Survey continues in the area. To date, a total of 1,131 residential trees have been removed.

Highlands County

Quarantine area: 25 square miles (expanded from 20 square miles July 7, 2003).

Citrus canker was confirmed May 14, 2002, in a citrus grove in southeast Highlands County. Surveying detected 291 infected trees within a 54-acre block inside an 833-acre grove owned by Premiere Partners III Ltd. Partnership. The grove is fairly isolated and located in the extreme southeast corner of the county, near the intersection of Highlands, Glades and Okeechobee

counties; no residential properties are nearby. The 1,900 foot control action of 20,689 trees on 153 acres is complete.

Citrus canker was detected in a grove 4.6 miles northwest of the previous Highlands County find on June 1, 2002. One positive and six exposed trees were immediately destroyed; control action of 43,380 trees on 240 acres is complete.

Canker was detected in a grove inside the quarantine area May 21, 2003. All 99 positives were destroyed immediately onsite; control action on 32,201 trees is now complete.

On June 5, 2003, canker was detected in a grove just southeast of the current quarantine area. Nine positive trees were destroyed onsite; about 31,636 trees await removal.

A 25-square-mile quarantine area is in effect in east Highlands County, expanded from 20 square miles on July 7, 2003. No citrus trees or citrus plants may be moved from, and no citrus trees may be planted in, the quarantine zone.

A total of 64,445 trees on 396 acres have been destroyed in the county.

Orange County

Quarantine area: 9.5 square miles combined (three square miles northeast, 6.5 square miles southwest), effective December 26, 2002.

Citrus canker was detected July 3, 2002 on a single grapefruit tree in a residential section of northeast Orlando by U.S. Department of Agriculture inspectors conducting routine sentinel tree survey. The grapefruit tree and a Hamlin orange tree on the same property were immediately removed. Five more positive trees at two nearby residences (within 900 feet of the first find) were detected and destroyed with the permission of the homeowners. To date, on 626 properties within the 1,900-foot circle, 1,002 trees have been cut.

In September 2002, a second outbreak was detected in southwest Orange County, approximately 16 miles from the original infestation. To date, on 627 properties within the 1,900-foot circle, 1,104 trees have been cut.

In November 2002, a third outbreak was detected immediately south of the second outbreak. On 408 properties within the 1,900-foot circle, 599 trees have been cut.

To date, a total of 2,679 trees have been removed in the county.

Two quarantine areas are in effect in Orange County as of December 2002: three square miles in the northeast and

6.5 square miles in the southwest. No citrus trees or citrus plants may be moved from, and no citrus trees may be planted in, the quarantine zone.

Lee County

Quarantine area: five square miles, expanded from four square miles on February 25, 2003.

Citrus canker was detected August 19, 2002, on a single grapefruit tree in a residential section of Cape Coral. The infected tree and eight exposed citrus trees on the same property were removed immediately with the owner's permission. Survey activities in the area detected many more positive trees and properties within 1,900 feet. A total of 4,122 trees (153 positive from 87 properties and 3,969 exposed) have been removed, and control action is now complete.

A five-square-mile quarantine area is in effect in Lee County, expanded from four square miles in February 2003. No citrus trees or citrus plants may be moved from, and no citrus trees may be planted in, the quarantine zone.

Sarasota County

Quarantine area: Englewood, four square miles, effective February 28, 2003.

Citrus canker was detected October 9, 2002 on two trees at two residential properties in Englewood, southwest Sarasota County, by U.S. Department of Agriculture inspectors conducting a routine sentinel tree survey. Immediate survey turned up three more properties, each with one positive tree, for a total of five properties with five positive trees. With the homeowners' permission, the positive trees were removed, along with other exposed citrus tree in close proximity. A total of 761 trees (five positive and 756 exposed) have been removed, and control action was completed on June 12, 2003.

Okeechobee County

No quarantine area.

Citrus canker was detected on October 22, 2002 at one residential property in Okeechobee by U.S. Department of Agriculture inspectors conducting routine sentinel tree survey. With the homeowner's permission, the positive tree was removed, along with 10 other exposed citrus trees in close proximity. A total of 51 trees (one positive and 50 exposed) on nine properties were removed and control action was completed on November 4, 2002.

DNA Analysis

There are three known pathogen genotypes of Asiatic citrus canker in Florida. The Miami genotype has been found in Brevard, Broward, Collier, DeSoto, Hendry, Highlands, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Palm Beach and Sarasota counties. The Manatee genotype is restricted to Manatee County, and the Wellington strain is found only in Palm Beach County. Hillsborough County declared eradication in February 2002; both the Miami and Manatee strains were detected there.

Current information on citrus canker eradication efforts may be found at www.doacs.state.fl.us/canker.

Tree Termite Eradication Program

Department personnel participated in the initial eradication effort for the tree termite, *Nasutitermes costalis*, on April 23, 2003. The tree termite is a non-native species of termite that was discovered in Broward County in May 2001. Pesticides were applied over a 50-acre area in Dania Beach west of the Fort Lauderdale International Airport, and two trailers and two boats that were infested were also fumigated. A post-treatment survey was done on June 3, 2003, and tree termite activity was observed in the heaviest infested areas, while good control was achieved in lighter infested areas.

Other Programs

Citrus Budwood Protection Program

2003 is the 50th anniversary of the clean stock or budwood protection program in Florida. The timeframe of the budwood program is important to the overall history of Florida's citrus industry, as advances in new clonal variety selections and the growing of pathogen-free trees opened up new scion/rootstock options for growers to plant as citrus plantings expanded.

Testing for graft-transmissible citrus pathogens is an integral component in protecting Florida citrus from exotic and endemic diseases that would devastate fruit production and quality. The program was initially set up to deal with psorosis, cachexia and other recognizable bud-transmissible diseases. Without a certification program to provide virus- and viroid-free propagating material, a grower's only option was to use tolerant rootstocks when encountering pathogen-infected stock. As there is no cure for viruses or

viroids in the tree, the detection and elimination of graft-transmissible pathogens from propagating sources is of utmost importance in having a healthy citrus industry.

Registered nursery tree propagations dropped from 5.5 million to 4.9 million in fiscal year 2002-03 as the need for trees decreased due to the limited amount of new acreage being planted with citrus in Florida. The number of active commercial citrus nurseries decreased from 71 to 62. Hamlin and Valencias continue to be the most produced varieties, and Swingle remains as the top rootstock used.

The Department distributed 217,962 budeyes from foundation trees this year. One hundred twenty-one varieties were distributed. Budwood bureau personnel made 158 budwood cuttings to supply 88 different customers. Florida citrus nurserymen received 94.5 percent of the budwood cut, while 5.5 percent of the budeyes were sold to non-participants. Six foreign countries received 1,956 budeyes, and eight other states received 2,213 budeyes from program foundation trees.

The budwood program expanded its locations in 2002 by utilizing existing greenhouses at the USDA Whitmore Foundation Farm, south of Leesburg. The first of two greenhouses was occupied in November 2002 and immediately helped alleviate overcrowding in Department greenhouses at Dundee and Winter Haven.

Today the budwood program regulates 62 commercial citrus nurseries and registers close to 5 million propagations a year. More than 930 participants have been involved in growing registered budwood or nursery trees throughout the past 50 years. Enough registered trees have been produced since 1953 to plant the entire citrus-producing acreage of the state. The budwood office annually distributes several hundred thousand budeyes for industry and homeowner use. The program keeps track of variety and rootstock usage in nurseries and reports nursery industry data annually.

Plant Inspection and Certification

At the end of fiscal year 2002-03 there were 7,698 nurseries and 3,833 stock dealer establishments registered with the Department. Inspectors made 32,069 inspections of nursery and stock dealer establishments. As a result of these inspections, 1,372,379 plants were quarantined. There were 14,350 state and federal certificates issued for shipments of plants and plant products exported from Florida.

Department personnel also inspected shipments of

plants and plant products imported into Florida from other states and countries, including 9,594 boxes of cut plant material, 5,908,402 commercial and home grown plants, and 454,750 boxes of citrus and other fruit. These inspections resulted in 41 regulatory actions for plant pests of quarantine significance. More than 10,766 samples were collected to check specifically for burrowing nematodes per the requirements of the Burrowing Nematode Certification Program.

Department personnel tended 174 gypsy moth traps in North Florida. Other seasonal traps included 16 cotton boll weevil traps.

Department and USDA personnel tended more than 57,025 traps for exotic fruit fly detection.

Caribbean Fruit Fly Protocol

The Caribbean fruit fly is a serious pest of many tropical and subtropical fruits of Central and South Florida. The Fly-Free Zone Certification Protocol was developed to certify citrus fruit as free of Caribbean fruit fly larvae. Bermuda, Brazil, Colombia, Ecuador, Japan, Korea, New Zealand, Philippines, Thailand, the People's Republic of China, Vietnam and the states of California, Hawaii and Texas have accepted this certification procedure, which is fully funded by grower assessments. Fruit shipped to these areas must originate in specific Caribbean fruit fly-controlled or designated areas in citrus-producing counties approved for shipment of fruit.

In the 2002-03 season, 157,640 acres were certified in 22 eligible counties. The Caribfly Protocol establishes a safe and effective procedure for exporting citrus to areas requiring quarantine safeguards. Japan is currently the largest importer of fresh Florida grapefruit; 10,180,271 cartons of grapefruit were shipped to Japan under the protocol certification program this season.



Boll Weevil Eradication

At the close of the 2002 cotton-growing season, there were 441 commercial cotton producers in the state. These producers planted 118,877 acres of cotton in 13 counties, a decrease over the 2001 growing season of 6,146 acres of planted cotton. Throughout the 2002 cotton-growing season, there were no boll weevils trapped in the state.

Pest Detection Oriental Fruit Fly

Florida made three detections of Oriental fruit fly in fiscal year 2002-03. On August 8, 2002, a single male Oriental fruit fly was detected at a residence in Orlando, Orange County. A second Oriental fruit fly was detected on September 6, 2002, about four miles away. On November 5, 2002, a single male Oriental fruit fly was detected at a residence in Pompano Beach, Broward County. Despite intensive trapping, no further flies were detected in these areas and no eradication program was undertaken in Orange or Broward counties.

The Oriental fruit fly is second only to the Mediterranean fruit fly in potential agricultural and economic impact. It attacks more than 140 different fruits and vegetables, including oranges, grapefruit, lemons, avocados, tomatoes, peppers, cucumbers, apples and grapes.

Guava Fruit Fly

Guava fruit fly, *Bactrocera correcta*, was captured in fruit fly detection traps in two locations during July-August 2002. One male was detected in Homestead, Miami-Dade County, on July 24, 2002; three males were detected in traps at residences in Pinellas Park, Pinellas County, from August 7-9, 2002. Protocol levels which would trigger an eradication program were not reached with these finds, so no actions other than increasing traps density and surveillance activities were taken.

This is only the fourth time that this species has been found in Florida: one fly was detected in Apopka, Orange County, in May 2001; one fly was detected in Oviedo, Seminole County, in August 2001; and two flies were captured in the Titusville area, Brevard County, in August 1999.

Mexican Fruit Fly

Fruit fly-infested hot peppers were found at two retail locations in Pinellas County on May 8, 2003. Live larvae of an *Anastrepha* species, likely *Anastrepha ludens*, the Mexican fruit fly, were in "manzano" peppers, *Capsicum pubescens* cv. Rocoto. Identification from the larval stage was tentative, but their identity as *Anastrepha ludens* was confirmed from specimens reared under quarantine to the adult stage on June 2, 2003. The peppers originated in Mexico and crossed the border into Texas, delivering live fruit fly larvae to at least six additional states.

On May 16, 2003, the partially decomposed remains of a single adult specimen of *Anastrepha ludens* was captured in a multi-lure trap in Orlando. It is unknown whether this adult has any connection with the introduction of live larvae in manzano peppers.

In response to the detection of an adult fly in Orlando, trap intensity was greatly increased to more than 1,100 traps in an 81-square-mile area surrounding the detection site. Heightened trap monitoring continued for a period of time equal to at least the duration of two life cycles (30 days or more each). No additional flies were captured, so no eradication program was undertaken.

Pink Hibiscus Mealybug

The pink hibiscus mealybug (PHM), *Maconellicoccus hirsutus*, attacks more than 200 kinds of plants. This pest is a piercing and sucking insect that sucks the sap from the plant and injects a toxic saliva as it feeds. This leads to the malformation of leaves and fruit, stunted leaves and terminal growth, and sometimes directly to the death of the plant. The PHM can be spread naturally by wind, birds and other wildlife, or by people moving infested plant material to non-infested areas. During fiscal year 2002-03, Department personnel witnessed the destructions of 283,109 plants as a result of PHM. In July 2002 the Department, in cooperation with USDA, initiated a PHM biological control program in Broward and Miami-Dade counties.

Pea Leafminer

Liriomyza huidobrensis, pea leafminer, is a highly polyphagous and serious pest of various vegetable and flower crops including lettuce, onion, pepper, potato, chrysanthemum, carnation and many others. The original distribution of this pest is thought to be in cool, highland areas of northwestern South America, but it has spread widely into Central America, Mexico, California, Europe and



Israel. During fiscal year 2002-03, one shipment from Mexico was intercepted that was positive for pea leafminer.

Apiary Pest Treatment/American Foulbrood

The small hive beetle continues to be a problem this annum. Resistant varroa mites continue to increase. Many hobbyists have lost all their bees. Efforts to find additional control products have not been successful. Higher honey prices are encouraging many to try to increase their colony count. However, mite problems and a short spring crop have made this difficult. Production this past spring was spotty again with very few reporting a good crop. The demand for bees for pollination continues to increase.

In fiscal year 2002-03, of the 256,641 honeybee colonies maintained by registered beekeepers there were 48,765 colonies inspected from 3,733 apiaries. Compensation of \$9,780 was paid to beekeepers for 398 honeybee colonies destroyed because of infestations of American Foulbrood disease. There were 230,000 colonies that moved from Florida into 18 migratory states.

African Honeybee

Established colonies of bees of African origin were detected for the first time in Florida in Tampa. All indications are that they are being crossbred with European bees and are now more European than African. There have been 25 swarms of African honeybees detected this fiscal year that have been depopulated: Three from Broward County ports; one from Duval County; 19 from Hillsborough County; one from Lee County; and one from Pinellas County.

Methods Development and Biological Control Projects

Biological Control Rearing Facility

The facility continued production in fiscal year 2002-03 of the Caribbean fruit fly, rearing approximately 172 million, or an average of 3.3 million per week. Although the total production was down due to decreased demand, the average larval and pupal production per tray of diet rose slightly to 54,094. Currently an effective strategy to incorporate wild Caribfly genes into the lab-reared colony is under way with two separate strains collected from the field, one coming from guava and the other from loquat host material. Various life stages were supplied to researchers at the University of Florida and the USDA as well as for the Department's alternative pesticide testing and parasitoid rearing project.

The facility also continued rearing the parasitoid *Diachasmimorpha longicaudata*, with approximately 2.2 million parasitoids produced from 3.7 million Caribfly larvae, more than a 66 percent parasitism rate. Over 560,000 combined adult wasps and parasitized Caribfly larvae and pupae were sent to various researchers at the University of Florida and the USDA. An additional 730,000 were sent to Tunisia and St. Kitts to establish mass rearing colonies of this parasitoid for use against their countries' fruit fly pests. Further studies continued on alternative adult wasp diet materials that require less preparation and may increase wasp longevity or production, saving labor and improving quality and efficiency.

Phorid Flies/Fire Ant Control

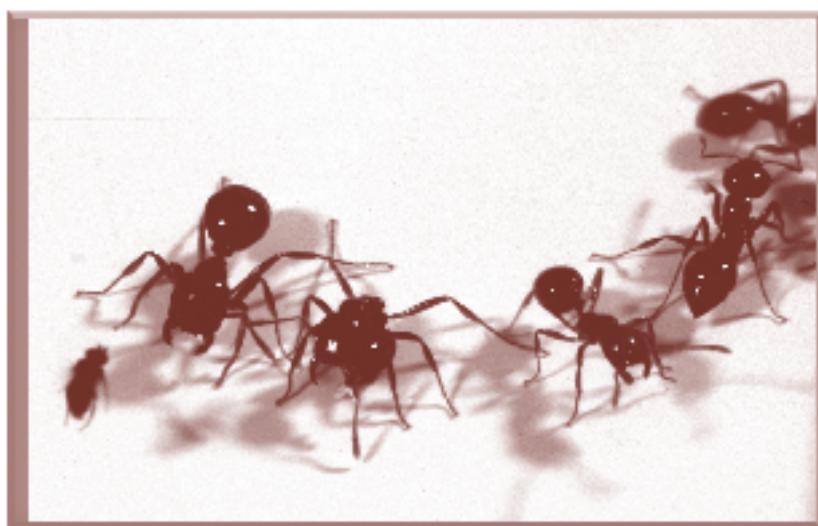
Mass rearing of the phorid fly, *Pseudacteon tricuspis*, continued at the Biological Control Rearing Facility as part of a joint venture with the USDA to release this parasitoid as a biological control agent against the imported fire ant, *Solenopsis invicta*. This endeavor encompasses personnel and resources from FDACS-DPI, USDA-ARS and USDA-APHIS, and several other agencies in many of the southern states. Funding for the project is mostly provided by a cooperative agreement with USDA-APHIS. Currently, seven attack boxes are on-line, producing between 400-800 flies/box/day of the phorid fly species *Pseudacteon tricuspis*. Approximately 1.3 million flies of this species were produced this past fiscal year with most being used to increase production and

improve rearing techniques. The adult phorid fly has a maximum life span of only a few days, so large numbers must be reared for colony maintenance. An eighth attack box was brought on-line and produced 37,000 phorid flies of a second species, *Pseudacteon curvatus*.

The USDA-APHIS Gulfport laboratory is continuing to coordinate field release efforts with various federal and state cooperators. During this past year the laboratory supplied more than 82,000 phorid flies for release in 11 fire ant-infested states and Puerto Rico. Both Florida releases, one in Sarasota and the other in Miami, have been successful with the phorid flies being found established in the field months after their initial release.

Diaprepes Root Weevil

Mass rearing of *Diaprepes abbreviatus* continued with improvements to rearing techniques. Multiple diet cups were infested with approximately 249,000 neonates, and 60,000 grubs were transferred to single cups, from which 22,000 pupated and 20,000 became adults. Development time remains long and variable with the greatest interval from egg to adult still being 519 days. Shipments included 600,000 eggs, 22,200 neonates, 3,300 grubs, 12 pupae and 17,900 adults to 11 different researchers developing control strategies against this important agricultural pest. Irradiation of the larval diet with a 1.5 mrad dosage prior to infestation was adopted as a part of the mass rearing protocol after sufficient testing showed that it had no gross negative effects, but greatly reduced the number of diet cups that needed to be discarded due to microbial contamination. An improved method for infesting neonate diet cups utilizing a Buchner funnel, vacuum pump and



shaker vial, instead of a small paint brush, was also tested and the practice adopted after it was shown to save both time and labor with no apparent negative effects on the neonate larvae. Also tested was the transfer of older instar larvae from diet to vermiculite media to try and shorten the larval development time interval which could significantly improve adult weevil production. The results thus far are inconclusive, and further testing is necessary to try to pinpoint an optimum age for transfer and to see if the additional labor of another step is worthwhile. This mass rearing and research is funded in part by a Florida Citrus Production Research Advisory Council box tax grant.

The Department has cooperated with U.S. Sugar Corporation, UF-IFAS, USDA and the Kerr Center in the introduction, rearing and release of *Quadrastichus haitiensis*, an egg parasite of *Diaprepes abbreviatus*. This parasite was imported into Florida in November 1998 from Puerto Rico. During the past three years the Department reared and shipped about 3.4 million *Quadrastichus haitiensis* for release in infested locations in Broward, Miami-Dade, DeSoto, Hendry, Highlands, Indian River, Lake and St. Lucie counties. *Quadrastichus haitiensis* has been established at several locations in Broward, Miami-Dade, DeSoto, Hendry and St. Lucie counties.

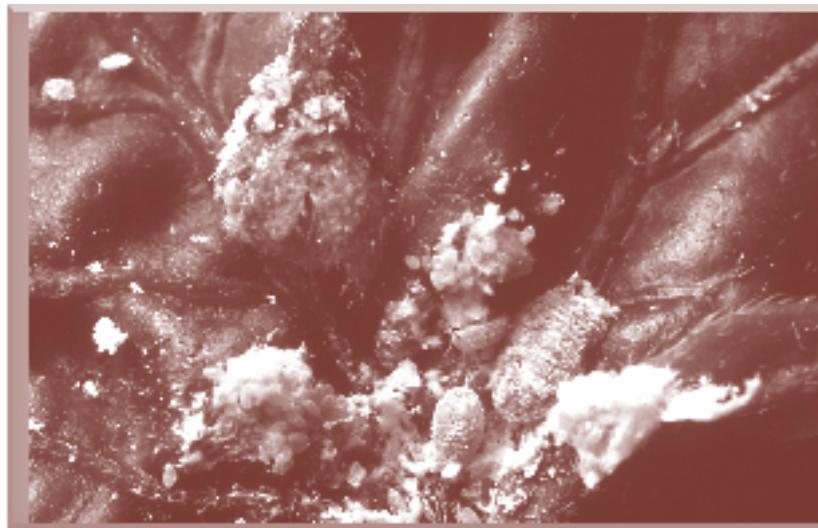
Ongoing cooperative research continues on the evaluation of selective pesticides for control of adult and immature life stages in nurseries. Other studies include efforts to improve present methods for surveillance and detection techniques for nurseries and citrus groves, field studies on adult weevil dispersal, trap efficiency, adult weevil longevity, and reproductive biology. Based on these studies and the fact that *Diaprepes* larvae are the economically important life stage, field tests have been developed to monitor seasonal larval populations in the field. This unique larval sampling method is critical for assessing individual control strategies used to suppress adult populations. Future research can effectively evaluate pest control strategies.

Previous *Diaprepes* genetic relationship research revealed that Florida's *Diaprepes* populations came from three unwanted introductions and there are distinct genetic differences between our populations. Currently, cooperative research is being conducted with several Caribbean Island nations to determine the possible locations of our introductions and to seek possible biological control solutions from genetically older populations. These research activities are in cooperation with the University of Florida-IFAS Research and Education Centers located in several locations in the state and are being funded by the

Florida Citrus Production Research Advisory Council box tax and UF-IFAS's USDA-CSRESS Special Grant.

Pink Hibiscus Mealybug

Continual release of parasitoids since June 21, 2002, has helped greatly reduce the impact and slow the spread of pink hibiscus mealybug, *Maconnellicoccus hirsutis*, since its detection on June 6, 2002. Through June 2003, more than 235,000 *Anagyrus kamali* and 265,000 *Gyranusoidea indica*



have been released at more than 519 sites in four counties (Broward, Miami-Dade, Palm Beach and Indian River). To date, 21 nurseries or stock dealers were infested, and all have been treated and released from quarantine or infested nursery stock was destroyed.

Weekly releases will continue as new sites are detected. Periodic surveys for mealybug spread, parasitism rates and the impact of hyperparasites and predators such as *Cryptolaemus montrouzieri* will also be continued.

Asian Cycad Scale

Asian cycad scale, *Aulacaspis yasumatsui*, was first identified in Florida from Miami-Dade County in 1996. The infestation had apparently been present for at least one to two years. This pest of cycads has since spread to at least 25 Florida counties where heavy infestations have been reported, including areas of Tampa, Orlando and Stuart. During February 2002, the Department collected the parasitoid *Coccobius fulvus* from infested cycads in the Naples area and released about 11,000 of these parasitoids in approximately 15 infested counties extending from the Orlando area to the south. Unfortunately, surveys during the past year have indicated that *Coccobius fulvus* has not

suppressed Asian Cycad Scale populations. A search for other parasitoids in China is currently under way.

Asian Citrus Psyllid

Asian citrus psyllid, *Diaphorina citri*, was discovered by Department personnel at Boynton Beach on June 2, 1998. It had spread to 28 counties by 2001. It is one of the most efficient vectors of greening disease of citrus. If greening disease is ever found in Florida, this vector could spread it throughout the state. In cooperation with UF-IFAS, two parasites of *Diaphorina citri* — *Diaphorencyrtus aligarhensis* and *Tamarixia radiata* — were introduced in the Department's quarantine laboratory October 21, 1998, and a permit for field release of *Tamarixia radiata* was granted on July 12, 1999, and for *Diaphorencyrtus aligarhensis* on March 10, 2000. In fiscal year 2002-03, approximately 14,000 *Tamarixia radiata* were reared and released from the Department's laboratory, and the Division of Plant Industry continues to monitor the effectiveness of these parasites.

Brown Citrus Aphid

Brown citrus aphid, *Toxoptera citricida*, was detected in Broward and Miami-Dade counties in November 1995 and has spread throughout the citrus-growing region of Florida. It causes economic losses by feeding on young citrus foliage and depleting sap. This aphid is one of the most serious pests of citrus due to its transmission of citrus tristeza virus. *Lipolexis scutellaris* adults from Guam were imported into the Department's quarantine laboratory on August 19, 1999, and a permit for release of this parasite was granted on June 21, 2000. Since then, approximately 15,000, 25,000, 30,580 and 26,065, for fiscal years 1999-00, 2000-01, 2001-02 and 2002-03, respectively, were released in infested counties.

Citrus Leafminer

The Department has continued to rear and release the citrus leafminer parasite, *Ageniaspis citricola*, especially in the areas that are infested with citrus canker in Miami and Immokalee. This parasite has been



established in citrus growing areas in Florida. Citrus leafminer populations were high in 2002, especially on young groves. To complement *Ageniaspis citricola*, another parasite, *Semielacher petiolatus*, was introduced into the DPI quarantine laboratory July 8, 2003.

Pepper Weevil

The pepper weevil, *Anthonomus eugenii*, is a serious pest of peppers and other vegetables in Florida. In cooperation with the University of Florida-IFAS, an attempt was made in April 2000 at introducing from Mexico into Florida *Triaspis eugenii*, a Braconid parasite of pepper weevil. Rearing attempts failed after three generations in the quarantine laboratory but efforts were continued to reintroduce this parasite as well as others in the future. Again working cooperatively with UF-IFAS, *Triaspis eugenii* was reintroduced in Florida in June 2003. Currently, a colony of about 100 adults is held in quarantine in Gainesville.

Lobate Lac Scale

Lobate lac scale, *Paratachardina lobata*, was first found in Broward County on August 25, 1999. This species, from India and Sri Lanka, has rapidly become a serious pest of several ornamental and native plants in south Florida. Cooperative efforts are under way to secure and introduce parasites from its native land.

Alternative Pesticide Research

Work has resumed on finding an effective material to replace diazinon as a fruit fly soil drench treatment. Bench top tests are being conducted on several candidate materials and those that are promising will be field tested.

In cooperation with USDA-APHIS-PPQ-CPHST, several bait stations were tested for long-term control of fruit flies. Prototypes tested were either ineffectual, or required further testing and development. Some difficulty has arisen in obtaining critical background information for additional testing of bait stations or constituents made outside the United States. Bait/pesticide interaction studies continue in the area of phagostimulation, feeding behavior and attraction to allow lower pesticide usage with reduced effects on the environment.

Medfly Enclosion/Release Facility for SIT/PRP

The Preventive Release Program continued the aerial release of sterile Mediterranean fruit flies to deter the establishment of introduced wild flies. This facility also acts as a reserve for a Sterile Release Program should an infestation occur, and a startup facility for other species of sterile fruit flies if available. Sterile Medflies were released over a 561-square-mile area, which includes Miami-Dade, Hillsborough, Manatee and Sarasota counties, at a rate of 125,000 per square mile, or a total of about 70 million per week. A total of 3,682,936,186 sterile Medflies were released during this reporting period.

The Worley Emergence Tower (WET) system, which replaced Plastic Adult Rearing Containers (PARCs), has proven to be efficient and economical on a large scale. Research to incorporate Enhanced Ginger Oil (EGO) therapy and/or juvenile hormone therapy into the WET system has been initiated to provide a more competitive sterile-released Medfly.

Spray Equipment Testing

An additional test with the LadyBird sprayer from Quest Development in South Africa using GF-120 Naturalyte™ fruit fly bait was completed in June 2003. Calibration problems with the sprayer resulted in inconclusive results on initial treatment at two spray rates, but the data did indicate there was no significant residual activity on sterile, released Caribbean fruit flies two weeks after application.

Guava/Herbicide Test

A second test was initiated in June 2002 and continued throughout the fiscal year to test the effectiveness of a Garlon 4™ herbicide and diesel fuel mix in killing common and cattley guava, preferred hosts of the Caribbean fruit fly. Larger amounts of the mix were placed on the total circumference of the plant stems with both wounding and without wounding (scoring, with a saw or machete). Common guava showed complete mortality in all of the treatments. For cattley guava, mortality results for single stem scored was 50; for single stem unscored, 25; for multiple stem scored, 100; and for multiple stem unscored, 100.

Thymol Test for Varroa Mite of Honeybees

Working cooperatively with the Apiary section, two field tests using thymol, a botanical insecticide, as a treatment to control varroa mites in honeybees, were conducted in Brevard County in November 2002 and April 2003. The tests were initiated to obtain data in support of an EPA Section 3 label or Section 18 exemption. During the first trial, two application methods and two formulations were compared to coumaphos and an untreated control. The second trial included only thymol in a 50-gram bulk, pre-packaged formulation and a control. The results indicated a significant reduction in mites compared to the control, but no statistical differences among the different forms of thymol used. As the tests were somewhat inconclusive, additional tests using this compound are planned for later this year.

Florida Accelerator Services and Technology (FAST)

Commercial irradiation services continue with semiconductors as the primary commercial product using the linear accelerator. Research products include plants, plant cuttings, chicken, oysters and fruit samples. Irradiations for DPI research and production include Diaprepes diet, bottles of water for eye wash and over 3 million CFF pupae. The Cesium-137 irradiator was used to process products including over 8 million CFF larvae and pupae, plus Diaprepes adults, citrus budwood, plants and seeds.

Training and Compliance/Fumigation/Miscellaneous Activities

The Department completed a total revision of the Public Applicator Training Manual – Regulatory Pest Control in June 2003. This manual is used as a study guide for employees preparing for the examination for certification as Public Applicators. The corresponding category exam was also revised.

Division of Plant Industry personnel continued to provide training and testing for division employees for Restricted Use Pesticide Licenses; coordinate employee applications and maintain records of CEU's for those licenses; provide recordkeeping and files of Material Safety Data Sheet; coordinate disposal of hazardous chemicals produced from division activities and provide security/monitoring of the Gainesville facilities.

Fumigation of specimens, books and reprints for the Florida State Collection of Arthropods continued at the Gainesville fumigation chamber. Annual evaluations and certifications of methyl bromide fumigation chambers used for blueberry fumigation were conducted during this period. Annual evaluations and certification of five methyl bromide atmospheric fumigation chambers used for citrus certification located at the Department's Wahneta fumigation facility were also conducted.

The Department maintains continuous fruit fly trap lines in portions of St. Lucie, Indian River and Martin counties. These traps are serviced weekly and the results tabulated for later reference concerning the variation in the seasonal Caribbean fruit fly population. This data supports the Caribbean Fruit Fly Protocol trapping information on fly populations in the urban area and is useful when conducting tests that involve the use of biological control agents or other suppression/control investigations.

The Department also provides technical assistance in the rearing and maintenance of a mole cricket colony located at UF-IFAS headquarters in Gainesville. This colony is a source of healthy specimens necessary to carry on different control research projects conducted throughout Florida.

Post-harvest Fumigation at Wahneta

Fresh citrus fruit and other commodities produced in Florida must be certified for specified regulated pests to meet certification requirements of important marketing areas. Arizona requires fumigation of all citrus fruit received. California, Hawaii and Texas require certification of citrus for freedom of Caribbean fruit fly unless it has met all pre-harvest certification requirements in accordance with the established Caribbean fruit fly protocol. Oregon requires fumigation for certification of fresh blueberries or freedom from blueberry maggot. Other commodities may require fumigation for certification for freedom of common pest such as the red imported fire ant.

At Wahneta, Florida, the Department provided post-harvest closed chamber fumigation service and certified 193 truck loads (mostly citrus). The numbers of loads provided fumigation services this year decreased by 36 percent. Fumigation service was provided for a fee of \$300 per load.

Winter Haven Automotive Maintenance Shop

The Department's Winter Haven Maintenance Facility provided maintenance for vehicles and equipment, as well as technical support for the Medfly Program the Caribbean

Fruit Fly Protocol Program, Agricultural Law Enforcement Unit, Citrus Canker Program, Division of Fruit and Vegetables, Oriental Fruit Fly Program, Division of Citrus Budwood Registration and Gainesville Bureaus of Administration, Plant and Apiary Inspection, and Methods Development and Biological Control. Shop personnel participated in ground and aerial spray operations testing fruit fly control methods. The Bureau of Pest Eradication and Control furnished storage and transportation of supplies and equipment for eradication programs, maintained vehicles and equipment, kept records and assisted in purchasing.

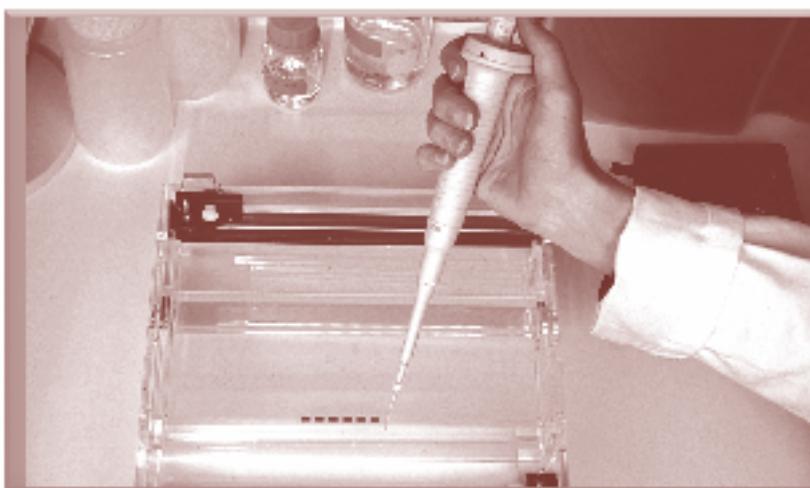
Entomology, Nematology and Plant Pathology

Entomology

For fiscal year 2002-03, the Department completed 7,599 separate identifications involving 372,729 specimens. During that same period five exotic species were found apparently established within the state, all representing new continental U.S. records. There were also 10 new state records.

The second year of a four-year, \$375,000 National Science Foundation grant for enhancement of the Museum of the Florida State Collection of Arthropods was completed successfully with the purchase and installation of 54 steel cabinets and 5,750 new drawers.

A total of 7,188 arthropod identification records from 1990 and 1991 were entered into the Entomology database. This brings the number of searchable DPI arthropod identification records to 67,902 with complete records for 1990 through 2003 and partial records as far back as 1985.



Florida State Collection of Arthropods

For fiscal year 2002-03, donations totaled more than 84,987 specimens which were valued at \$392,937, with the total number of specimens now more than 8 million. Also in that time period, 15 guided tours were given at the collection with 225 students and adult participants.

Nematology

In fiscal year 2002-03, the Department analyzed 20,580 samples. These samples contained more than 138,712 specimens of plant parasitic nematodes, which were identified to genus and/or species by the Department's nematologists. Nematological analyses for certification and regulatory programs relative to citrus and ornamentals, and other Florida crops represented 90.5 percent of the Department's diagnostic work.

The rice root-knot nematode *Meloidogyne graminicola* was detected and reported for the first time in Florida in survey soil and weed (sandspur) samples collected in Miami-Dade County. Molecular and morphological analyses of the root-knot nematode specimens collected from soil and plants growing at the site, where the nematode was found, are being conducted by DPI nematologists to confirm the identification and distribution of this nematode in Florida. These analyses are still in progress.

Plant Pathology

For fiscal year 2002-03, the Plant Pathology Section processed 9,351 samples in the main Gainesville laboratory (5,135 pathology samples and 4,216 citrus canker samples). In addition, seven new pathogens were identified in Florida for the first time.

Botany

For fiscal year 2002-03, the Department processed 5,455 samples. In addition, 53 specimens were added to the herbarium, bringing the total size of the collection to 7,892 specimens. Two seed samples were added to the seed collection, bringing the total number of seed vials to 1,466.

Fruit Fly Identification Laboratory

The Department's inspectors USDA fruit fly survey specialists serviced approximately 56,000 traps combined on a two- or three-week schedule. The Fruit Fly Identification Laboratory (sterile Medfly Preventative Release Program and Caribbean Fruit Fly Certification Program) processed 210,413 different fruit fly detection traps and screened 1,896,121 sterile Medflies and wild Carib flies.

During this survey period, nine exotic fruit fly introductions occurred: four adult *Bactrocera correcta* (Guava fruit fly), three adult *Bactrocera dorsalis* (Oriental fruit fly), several larvae of *Anastrepha ludens* (Mexican fruit fly) in manzano peppers shipped from Mexico, and one adult *Anastrepha ludens*. Through early detection and control efforts, these economically significant fruit flies did not become established, and all but the last detection have been declared eradicated.

Advanced Diagnostics Laboratory

For fiscal year 2002-03, the Advanced Diagnostics Laboratory conducted diagnostic tests on 300 regulatory samples consisting of 1,117 runs (citrus canker, Africanized honeybee, Gemini virus, Medfly, and imported fire ant certification).





Fresh from Florida

Since 1990, the Division of Marketing and Development has overseen the Florida Agricultural Promotional Campaign, more commonly known as Fresh from Florida. This program provides Florida agricultural businesses with marketing tools and services which help them remain profitable in worldwide markets. Products which display the highly recognizable Fresh from Florida logo range from Florida-grown fruits, vegetables, and seafood to specialty products. The Division of Marketing and Development also creates similar marketing campaigns to promote Florida's agricultural industries such as horticulture, livestock, and cattle.

The Department continues developing new methods to reach audiences with the Fresh from

Promoting FLORIDA Agriculture



Florida message, while building upon existing industry relationships and establishing new corporate partnerships. Through marketing tools such as trade leads, surveys, market research, and trade events, the Department carries out its mission of promoting Florida agriculture.

Northern Exposure, Greetings from Your Florida Farmer, Florida Tomato Marketing Partnership

Three marketing promotions in 2003 contributed to Florida produce sales, which increased \$173 million, more than double the 2002 sales increases.

A total of 8,289 retail stores — located in 28 states, the District of Columbia, and the Canadian provinces of Quebec and Ontario — participated in one or more of the promotions. These promotions coincided with Florida's significant winter-spring harvest, which supplies the United States with much of its domestically grown produce.

Northern Exposure II partnered with VISIT FLORIDA, the official Florida tourism marketing agency, to target large retail markets in the northeastern United States and Canada by offering grocery shoppers the opportunity to win free Florida vacations. Featuring a variety of Florida produce,

Florida, Georgia, Alabama, South Carolina, Mississippi, Arkansas, and Louisiana. The 1,667 participating stores realized additional Florida tomato sales totaling \$12 million over last year's results.

Using in-store circular advertising and VISIT FLORIDA contest displays, these marketing promotions maximized shopper awareness and willingness to select Florida products over other choices. In 2003, retail involvement grew to a total of 8,289 retailers, up from 5,100 participants in 2002.

Trade Missions and Reverse Trade Missions

The Department continued to market Florida agriculture throughout the world by conducting overseas trade missions from Florida as well as hosting reverse trade missions into the state.

During fiscal year 2002-03, Florida hosted a large group of French farmers from the southern French region of Rousillon Languedoc, who were interested in Florida dairy cattle, fruit and vegetables and grape vineyards. The Department hosted a large reverse trade mission from Holland and Belgium that visited fruit and vegetable farms in Central and South Florida. Two separate visits resulted from Florida's market research trip to Eastern Europe in 2000. Polish agricultural officials requested information about Florida's forestry, horticultural products, and cattle industries.



additional sales exceeded the previous year's sales by \$144.8 million at the 5,286 participating retail stores.

Focusing on Florida retail markets, Greetings from Your Florida Farmers featured a variety of Florida produce suitable for springtime salads and grilling. The promotion realized \$16.7 million in additional Florida produce sales over the previous year for the 1,336 participating stores.

In its fourth year, the Florida Tomato Marketing Partnership promoted Florida tomatoes to retail stores in

Florida Cattle Sales to Puerto Rico and Central America

During fiscal year 2002-03, the Department conducted numerous livestock trade missions that established relationships, generated sales, and promoted Florida's cattle industry.

Honduras, Guatemala, Brazil, and Puerto Rico participated in several Department-hosted reverse trade missions groups toured ranches throughout the state to establish trade relations and purchase cattle.

Representatives from the Department, the University of Florida, and the cattle industry joined forces in Ecuador for a trade mission to the Guayaquil Livestock Show. Using

newly established trade relations with the Cattlemen's Association of Guayaquil, representatives made plans to host another reverse trade mission next spring.

Continuing its relationship with the Puerto Rico Beef Board and the Puerto Rico Department of Agriculture, the Department again collaborated with representatives from the University of Florida and the cattle industry for a mission. Subsequently, members of the Puerto Rico Beef Board and the Puerto Rico Department of Agriculture visited Florida ranches to select cattle, resulting in three shipments of Florida cattle to Puerto Rico in 2003.

Agri-Journal/Trade Leads

The Florida Agri-Journal is a monthly publication reaching more than 7,500 Florida Agricultural Promotional Campaign members, as well as Florida agribusiness associations, educational institutions, and government agencies. The Agri-Journal incorporates major marketing campaign information, industry and market trends, and relevant news updates from around the world so that readers receive a comprehensive and concise stream of information providing an overview of important Florida agricultural activities.

Also included in the Agri-Journal are trade leads, which aid Florida agricultural producers in gaining a competitive advantage when marketing products domestically and internationally. In an annual survey of trade lead recipients, responders reported more than \$2.6 million in trade lead generated sales.

Florida Market Bulletin

The Florida Market Bulletin is a primary vehicle for keeping Florida's farming community informed of issues affecting the state's agriculture industry and the Department. This agricultural newspaper has been published regularly by the Department since 1917 and is currently available in printed form and on the Internet. In addition to disseminating agricultural news and information, the Florida Market Bulletin provides a forum by which Florida residents can advertise to buy or sell agriculture-related items through its classified advertising section. During the 2002-03 fiscal year, 5,119 classified ads appeared in the Market Bulletin, which is published monthly and serves nearly 22,000 Florida farming households.

Educating and Informing Consumers

The Bureau of Education and Communication is responsible for educating and informing consumers through news releases, brochures and other publications, exhibits and displays, graphics presentations, the Internet, and other multimedia productions. Bureau productions are instrumental components of many projects that are part of the Florida Agricultural Promotional Campaign (FAPC), a program which assists the state's agricultural producers in expanding markets and promoting and selling Florida-grown products.

During fiscal year 2002-03, the bureau issued more than 170 press releases to inform the public about various regulatory and promotional activities of the Department. Additional publications regularly produced and distributed by the bureau include the Department's Annual Report, and the Department's employee newsletter, Open Lines.

The bureau also responds to inquiries from the public, and mails out publications upon request. More than 11,518 publications were mailed out in response to over 1,962 individual requests received via mail, telephone, e-mail and the Internet.



Graphics

The bureau is responsible for the design, illustration and production of printed brochures, booklets, posters, billboards, ads, and other marketing, promotional and educational materials pertaining to agricultural marketing programs and other activities of the Department. The bureau's graphics section was involved in the production of more than 300 projects during the fiscal year, including:

- Point-of-purchase materials for the "Northern Exposure," "Greetings From Your Florida Farmers" and "Florida Tomato Marketing Partnership" spring produce marketing campaigns.



- Commissioner's Agricultural-Environmental Leadership Awards program booklet.
- "Woman of the Year in Agriculture Award" program booklet.
- "Florida Agricultural Fast Facts Directory," which provides comprehensive information and data on Florida agriculture including statistics, comparative performances of major commodity groups, and benchmark economic data.
- "Forestry Trade Mission: A Path for Florida Timber," a 52-page booklet that presents marketing and distribution information obtained by a Florida trade delegation during its visit to the People's Republic of China to explore opportunities for exporting Florida wood products.
- Department Annual Report.
- Components for the Fresh-2-U student nutrition program including lunchroom posters, report card, and school food service manual.

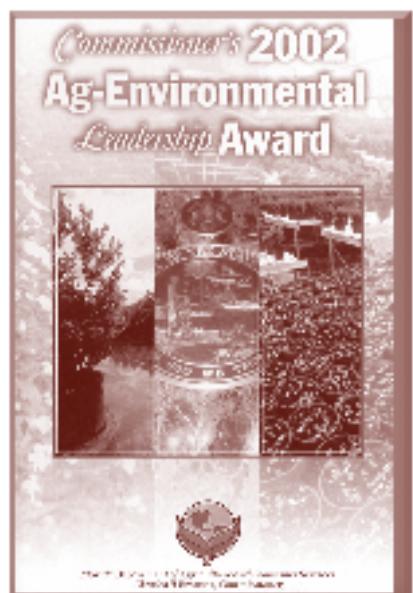
Video and Radio

The bureau produces and disseminates audio and video productions such as television and radio public service announcements, radio programming, agricultural producer assistance videos, informational/promotional videos, documentaries, and training videos. Video projects produced during the fiscal year include:

- Television spots promoting the Florida State Fair in Tampa; produced in conjunction with the Florida State Fair Authority.

- Television spot promoting the consumption of Florida-harvested pink shrimp.
- Informational video explaining the Department's legislative budget issues for the upcoming fiscal year.
- An informational/promotional video about the Future Farmers of America state officers.
- An informational video about forest health and the destructive southern pine beetle.
- Two television spots promoting regionally grown agricultural products offered by members of the North Florida Local Food Partnership.
- A television public service announcement about the dangers of wildfires, urging caution when burning yard trash.
- An informational/promotional video about Florida's cattle industry and beef consumption.
- An informational video about Florida's "Woman of the Year in Agriculture," outlining the contributions to the state's agricultural community by the 2002 recipient, Annette Barnett Land of Branford.
- Three informational videos about the winners of the 2002 Commissioner's Agricultural-Environmental Leadership Awards, detailing the progressive environmental efforts of: Sanwa Growers Inc., of Wimauma; Holloway Tree Farm and Holloway Irrigations Systems of Leesburg; and Daniel A. Botts of Orlando.

Radio programming during the fiscal year included promotional spots for the Florida State Fair, and a weekly agricultural news program in conjunction with Southeast AgNet.



Marketing/Advertising Awards

The Division of Marketing and Development's efforts for calendar year 2002 were recognized by the professional advertising community through the presentation of 13 Addy Awards, which recognize excellence in creativity, originality and creative strategy in print and electronic media. The division received three local golds, 10 local silvers, and one district gold award. Gold award winners were: China Forestry Mission Report; Kids' Kitchen Cookbook; 2002 Agricultural-Environmental Awards; and FisHedz Kids' Aquarium Brochure.

Promoting Florida Agriculture on the World Wide Web

The Bureau of Education and Communication designed and maintains the Division of Marketing and Development's web site, www.florida-agriculture.com. The site contains information and materials that help Florida farmers more effectively market their commodities. These marketing tools include trade leads, market prices, information about export assistance programs, agricultural statistics, weather reports, license and bond requirements, agricultural classified ads, and more. The web site also helps inform consumers about the wholesomeness, variety and availability of Florida agricultural products. This is done by providing nutritional data, recipes, seasonal availability information, food safety tips, etc. The web site fosters the notion that the more consumers know about the many agricultural commodities grown in Florida, the more they will choose to buy products that are "Fresh from Florida."

Seafood and Aquaculture Marketing

The Department provides information to the Florida seafood and aquaculture industry to help buy, sell and market Fresh from Florida seafood and aquaculture products. The mission of the bureau is twofold: to market Florida products to consumers and to assist the seafood and aquaculture industry to increase sales. The Bureau of Seafood and Aquaculture Marketing has been serving the industry and consumers for over 30 years. Bureau services include producing educational materials for consumers to be informed shoppers and experienced cooks when using

"Fresh from Florida" products, providing promotional materials, supplier directories and training on handling and storage safety for retailers, foodservice, wholesalers and processors. The bureau provides educational technical support and training for fishermen, aquaculturists, retailers and foodservice. The Bureau serves as a liaison for aquaculturists, commercial fishermen, government agencies and the consuming public by utilizing the expertise of industry advisory councils. The bureau provides public and media relations on behalf of the seafood, aquaculture and marine life industries, including electronic marketing programs, identifying U.S. and international buying and selling operations, and assisting and promoting Florida industry through the distribution of recipe brochures and educational materials to visitors at seafood festivals throughout the state and at industry trade events, domestically and abroad.

The Department is committed to serving seafood and aquaculture audiences with integrity and professionalism to increase the industry's sales and profits through global marketing and education. This year, seafood and aquaculture promotional materials were distributed, and press releases and public service announcements were distributed. As a result of activities of the Bureau of Seafood and Aquaculture Marketing, more than 2 billion consumer impressions were generated nationwide with a sales value of approximately \$10 million. Chief among the audiences served by the Department are:

- Consumers seeking information to wisely purchase, prepare, serve and store seafood and aquaculture products. The Department reaches consumers through an active program to distribute seafood recipes and educational, handling, and storage information by means of printed materials, news releases, and public service announcements through television, radio, print media, and appearances at regional seafood festivals.
- Producers (fishermen, processors and aquaculturists) needing technical, educational, marketing and promotional assistance, as well as safety, handling



and storage information. Florida fishermen and processors took advantage of several marketing and promotional opportunities to sell their products. Most of the Department's marketing and promotional programs use the Fresh from Florida logo and are backed by a multilevel campaign creating consumer awareness and interest and fueling demand for Florida products.

- Retail and wholesale buyers and sellers seeking new sources and types of seafood products and marketing and promotional assistance. During fiscal year 2002-03, marketing promotions featured many Florida products, including pink shrimp, white shrimp, oysters, mullet and yellow tail snapper. Working with 1,250 of Florida's prominent grocery chains and restaurants, the Department used a marketing combination of billboards, print media advertising, and in-store signs to generate sales increases of between 200 percent and 2,600 percent during the promotion period.

Publications

The Department produces several publications highlighting Florida seafood and aquaculture companies' products, promotional and marketing programs, technical services, and exporting opportunities. The Source Directory continues to be a principal resource for more than 300 Florida seafood and aquaculture wholesalers, retailers, and allied companies. The Source is distributed to more than 3,000 seafood, aquaculture, marine, and pet store buyers. An online version of the Source is continually updated with wholesalers. A Fresh from Florida Trade Leads program targets exporting opportunities for seafood and aquaculture producers and distributors. More than 250 companies received seafood and aquaculture trade leads and have credited this service with generating more than \$3 million in sales.

Technical and Educational Assistance

The Department presented an overview of technical services during industry trade meetings and responded to individual requests for information. The Department contacted more than 41,000 businesses during one program designed to outline the repercussions of illegal seafood sales, mislabeling of stone crab claws and other seafood products, and illegal purchases of seafood products.

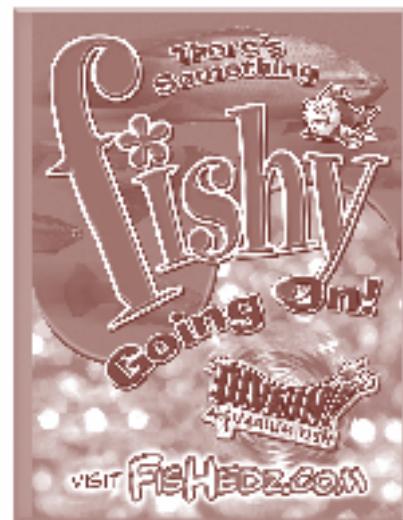
American Alligator Campaign

The Department partners with the Florida Alligator Marketing and Education Advisory Committee and the Louisiana Department of Agriculture and Forestry to proactively educate potential target markets about the attributes of alligator leather and the conservation efforts in which the industry is involved to protect the species through the American Alligator Marketing Campaign. This year's campaign focused on trade advertisements, press releases and trade events highlighting alligator as an excellent source of both leather and meat. As a result of the campaign, more than 15.7 million consumer impressions were generated.

Dive In! Aquarium Fish Campaign

The Dive In! Aquarium Fish Campaign — a partnership with the Florida Tropical Fish Farms Association, American Pet Products Manufacturers Association and aquatic industry companies — is a consumer and retailer marketing and promotional campaign developed to increase sales and consumer awareness of tropical fish and aquarium accessories. This multi-component campaign, which began in October 2000, touts the positive social, psychological, entertainment and economic attributes of aquarium ownership.

Fiscal year 2002-03 included further development and distribution of point-of-purchase materials, consumer education tools, and the Dive In! Pro Retail Training Program. To date, 2,100 pet retailers participate in the campaign through these components. A total of 3,353,122 pieces of promotional and educational materials were distributed throughout the year. Promotional activities included participation in six pet industry trade events and distribution of press releases



and interviews with pet industry trade publications. In addition, retail partnerships were developed with Wal-Mart and PetSmart.

Trade Events

The Department participated in seafood and aquaculture trade events this year, creating more than 7.5 million consumer impressions, and generating more than \$6 million in sales. Among the events in which the Department participated during the year were the European Seafood Exposition in Brussels, Belgium; the International Boston Seafood Show; The National Restaurant Show, in Chicago; the Isle of Eight Flags Shrimp Festival, in Fernandina Beach; the Florida Restaurant Association Show; and the Epcot International Wine and Food Festival, in Orlando.

Grant Funding Seafood and Aquaculture

An education and information program for Florida clam farmers has been developed and implemented under a grant awarded by the USDA. The goal of the program is to identify and characterize the potential national and

information gathered in focus group meetings with each buying segment. An educational training curriculum for market growth and risk management is developed for use by Florida clam farmers. Through the consistent application of information derived, Florida clam producers will be able to maintain profitable farming activities and increase market sales. Components of the program include participation in trade events, promotional materials including flyers, brochures, in-store samplings and advertisements in major industry periodicals

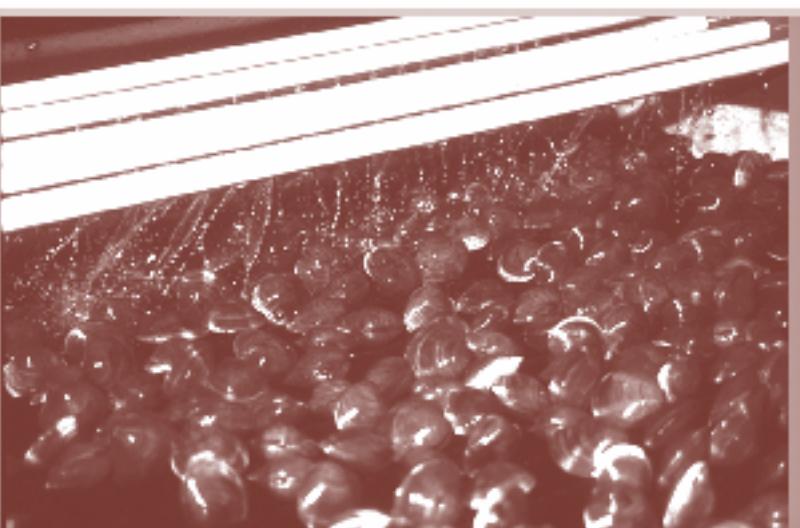
Oyster Production

With a grant from NOAA and the National Sea Grant Program, the Department, along with others such as the Louisiana Seafood Promotion and Marketing Board, the Mississippi Department of Marine Resources, and key members of the Gulf of Mexico oyster industry are collaborating on a two-year project. The goal is to increase the overall sales and consumption of oyster products through the development and promotion of post-harvest treated processes and technologies, and to provide acceptable and safe oysters. All of this depends on food service professionals and consumer acceptance of non-traditional oyster product forms, as well as the adoption of new oyster processing technologies by oyster processors.

The Florida Department of Agriculture and Consumer Services is developing appropriate consumer education materials and communication strategies targeted at food service professionals and at the at-risk segment of the general population. Awareness of the risks involved in eating raw oysters and the information regarding the availability of equally good tasting product alternatives with safety-added features is the main focus of this education program.

Hispanic Seafood Attitudes

The Department received a grant from the USDA office of Federal-State Marketing Improvement Program to identify and characterize national Hispanic seafood and aquaculture products by country of origin; determine the means and message content needed to positively influence purchasing decisions; and determine the best educational and marketing outlets. As a result of the information obtained, a more concentrated message is under development to the Hispanic market.



international wholesale, retail, foodservice and consumer buyers for Florida farm-raised clams. Marketing strategies have been developed to reach these potential buyers using

Food Distribution

The Department administered or provided support through commodities or cash for a number of U.S. Department of Agriculture programs in Florida, including the National School Lunch Program, Summer Food Service Program, and the Emergency Food Assistance Program that provides commodities for distribution to the needy.

More than 245 agencies, including schools, food banks, food pantries, and mass household distribution organizations, received more than 84 million pounds of food valued at \$65 million. Approximately 3 million people were reached on a daily basis making Florida's food distribution program the fourth largest in the nation.

The Department is also involved in programs such as the Food Recovery Program that endeavor to eliminate hunger and food insecurity in the state. This fiscal year, Florida farmers donated more than 12.5 million pounds of fresh produce for distribution to the needy. The Department published the Food Recovery Resource Guide, which lists organizations involved in food recovery. Approximately 25,000 copies of these booklets were distributed to entities involved in the preparation of meals and/or the sale of food items such as schools, restaurants, hotels, grocery stores. The resource guide is also available on-line at www.Florida-agriculture.com/food/resource.htm.



WIC/Farmers' Market Nutritional Program

The Florida Department of Agriculture and Consumer Services and the Florida Department of Health administer the WIC/Farmers'

Market Nutrition Program jointly.

This U.S. Department of Agriculture program has two statutory objectives: to provide women and children who are

nutritionally at risk with fresh produce, and to help local farmers by expanding the awareness, use of and sales at local

farmers' markets. Booklets totaling \$640,000 in \$4 coupons were provided to over 32,000 eligible WIC clients in Alachua, Bay, Escambia, Gadsden, Holmes, Jackson, Leon, Okaloosa, St. Johns, Santa Rosa, Suwannee, Union, Volusia, Walton and Washington counties. Participants can redeem the coupons for the purchase of locally grown fresh fruits and vegetables from authorized farmers at community farmers' markets. WIC/FMNP continues to be very successful and well received, with WIC clients and participating farmers both enthusiastically embracing the program.





Ensuring A SAFE, WHOLESMOME Food Supply

The Department's experienced staff of public health professionals and extensive network of laboratories monitor approximately 46,000 retail food stores, processing plants, and similar businesses to ensure compliance with food wholesomeness and safety standards.

The Department maintains a close working relationship with the U.S. Food and Drug Administration (FDA), the U.S. Department of Agriculture (USDA), the Florida Department of Health, and the Florida Department of Business and Professional Regulation to share information, avoid duplication of effort, and carry out food safety activities more effectively and efficiently.

The Department continues to emphasize proper sanitation and safe food-handling procedures in the establishments it inspects and regulates while also providing consumer protection safeguards by collecting random samples to ensure the absence of food pathogens and check the accuracy of product labels, net weight, and grade standards.

The Department also continues to assist the food industry through training for the implementation of Hazard Analysis Critical Control Point (HACCP) programs. HACCP concentrates on preventing, eliminating, or reducing food

safety hazards to an acceptable level, which may occur during any stage of the food production or handling process. Thus far, HACCP training efforts have concentrated on high-risk foods including sprouts, unpasteurized citrus juice, and seafood including sushi.

One of the Department's major missions is to protect the public from unsafe foods by monitoring for foodborne

pathogens, pesticides, and other chemical residues for the enforcement of established tolerances.

The Department is a leader in the development and implementation of sophisticated analytical techniques and methods to ensure the safety of foods throughout the production and distribution process.

By administering the Interstate Milk Shippers Program and similar state regulations, the Department assures consumers that dairy products are wholesome and are produced, processed, and merchandised under sanitary conditions. These programs also enable Florida dairy farmers to ship their products in interstate commerce.

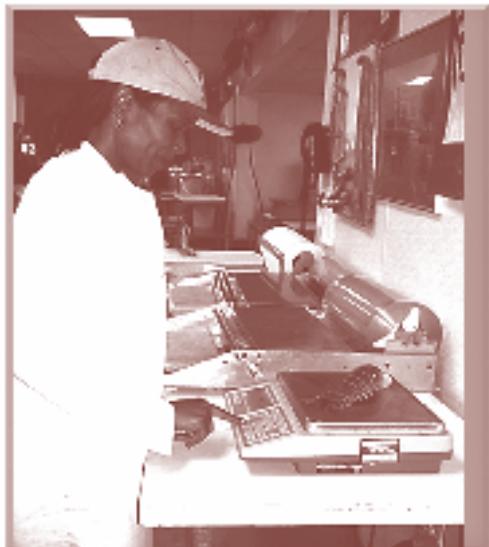
The Department emphasizes the prevention of foodborne illness, and if a critical situation relating to food safety arises, the Department has the authority to immediately halt the sale of products deemed hazardous to the public.

Food Inspection

The Department has broad consumer protection responsibilities in the area of foods, including the inspection of retail food stores, food processing plants, and similar businesses in Florida to assure compliance with food wholesomeness and safety standards. There were 46,264 such businesses operating during the past year, including approximately 2,000 water vending machines.

During fiscal year 2002-03, a total of 91,283 inspections were conducted to determine compliance with sanitation standards or HACCP requirements. Other frequent activities by food inspectors included visits to establishments for complaint investigations, administrative purposes, sample collection, and enforcement actions such as placement or removal of stop-sale or stop-use orders.

As a result of this inspection activity, the Department cited 4,348 individual food businesses for failure to meet



sanitation and food safety standards; 393 of those firms received administrative complaints and were assessed \$513,980 in fines. In other actions resulting from surveillance inspections, 20,201 notices of violation and 26,918 stop-sale and stop-use orders were issued with the stop-sale orders removing 3,664,126 pounds of unsafe or otherwise unfit food from the Florida marketplace.

In addition to sanitation and food safety concerns, inspections also entailed a variety of other consumer protection safeguards. Food labels were reviewed for accuracy and compliance with federal and Florida requirements. Packaged foods were test-weighed to assure net weight accuracy. Ground beef was tested to insure the amount of fat was correctly stated on the label, that poultry or pork products had not been added, and for the presence of fillers and sulfites. Shucked oysters were tested for mandatory expiration dating and added water. Eggs were examined to verify labeled grade and size. Other foods received similar quality and safety checks.

An important part of the food inspection program is response to consumer needs and concerns. Numerous telephone calls, e-mail messages, and letters were received from consumers during the year asking a variety of questions about food in general or specific foods in the marketplace, or expressing a concern about food establishment conditions. A total of 2,411 consumer complaints were investigated during the year, and each person filing a complaint was advised of the findings.

The Department continues to work in close cooperation with FDA and USDA on food safety activities. Under contractual arrangement with the FDA, the Department inspected 232 interstate food processors and collected 615 samples, of which 53 were analyzed in FDA laboratories and 562 in the Department's Food Laboratory. The Department and the FDA have also entered into partnerships in several program areas to avoid duplication, share information, and assist each other in carrying out food safety activities. The Department continued to provide egg and poultry grading and inspection service for 14 establishments under authority of a long-standing cooperative agreement with the USDA. A total of 991 million pounds of poultry and eggs were graded or inspected in order to qualify for labeling under USDA standards.

The Department continues to emphasize the enforcement of Florida's statutory requirement that the country of origin of any fresh fruit or vegetable produced outside the United States be identified to food store

customers. This identification can be accomplished through labeling of individual items or by signage at the display. During the year, 541 violations were identified and 301 administrative fines totaling \$99,600 were received from establishments that had violations.

The Department also continued its surveillance of herbal dietary supplements containing harmful compounds. Ingestion of products containing ephedrine alkaloids (sometimes called ma huang) has been associated with several deaths, including at least one in Florida. Surveillance efforts, supported by laboratory analysis, have resulted in 13 products being banned by the Department. Active inspection monitoring and testing of suspect products continued due to the popularity of these types of food supplements and their continually changing formulations, label irregularities, and use of brand names. These efforts have been effective in reducing the risk to Floridians from these products.

Over the past several years, the popularity of diet plans based on low carbohydrate intake has increased significantly. While the Department has conducted surveillance of nutrient claims over many years, until recently the focus has been on claims such as low sugar or salt. The Department has expanded its surveillance to include the claim "low carbohydrate," "reduced carbohydrate," "no sugar," "fat free," "no sugar added," and other nutritional claims. Legislation was introduced in 2002 that set forth specific schedules for the Department's responses to nutrient claims violation. The Department has tested 209 samples for nutritional label claims. There have been 41 violation/warning letters issued as well as fines assessed for non-compliance with the law.

The Department issued 325 notice-of-violation letters, 20 adverse findings letters and 113 defective action level letters. The letters covered such issues as excess fat in ground beef, undeclared allergens, high bacterial plate counts in various ready-to-eat (RTE) foods such as sandwiches, salads, cheese, sprouts, sushi, and RTE produce, species adulteration, and general labeling deficiencies.

The Department initiated administrative actions against approximately 645 food establishments that did not pay the required renewal fee for a Food Establishment Permit and collected \$209,040 in administrative fines and fees for late payment. These establishments were open for business and had been inspected and were in violation because they were operating without a permit. Permit renewal is required annually under Florida law. In

addition to the overdue food permit fee, the establishments were required to pay an administrative fine.

Hazard Analysis Critical Control Point (HACCP)

The Department continued to be actively involved in the training and implementation of HACCP programs in the food industry. HACCP is an internationally recognized, science-based, systematic, preventive, process control program to assure the production of safe food. It complements existing sanitation and good manufacturing practices programs. The program concentrates on preventing or controlling hazards, which may occur during any stage of the food production or handling process. Since December 1997, federal and state food rules have required seafood processors to develop and follow a HACCP plan. During fiscal year 2002-03, 290 verification inspections of seafood HACCP programs were conducted. The Department's HACCP unit coordinated with industry and other agencies to provide training and information.

A relatively newly popularized condiment is fresh vegetable sprouts. Several firms in Florida grow fresh sprouts for shipment to retail outlets such as grocery stores and supermarkets. The Department has required sprout growers to institute and use a HACCP plan to control the hazards in the growth of these potentially hazardous foods. During fiscal year 2002-03, 134 HACCP inspections were conducted at the firms that grow and sell sprouts.

HACCP personnel continue to be involved with industry, academia, and regulatory agencies to provide training support and expertise as HACCP principles are applied in other food industries, such as fresh citrus juice processing, sprout growers, shell eggs, and retail establishments. In 2001, FDA published regulations which require fresh juice processors to apply HACCP principles in the production of juice for beverage use. The effective dates of that regulation are staggered from 2001 to 2004 based on business size. The Florida Department of Citrus published Standards for Fresh Squeezed Citrus Juices, Chapter 20-49, Florida Administrative Code, as an interim measure requiring application of HACCP to production of fresh juices until such time as the federal regulation becomes fully implemented.

The Department, through the Division of Food Safety and the Division of Fruits and Vegetables conducted more than 150 HACCP inspections of fresh squeezed juice

manufacturing firms during fiscal year 2002-03. The Department continues to provide training and other assistance to the state's small citrus juice processors.

Other Programs

The Department maintains an active role in managing food safety issues, including providing assistance in the investigation of foodborne illness; coordinating the collection of samples to monitor potentially unsafe foods; responding to consumer requests; and providing educational materials; conducting informal hearings on administrative complaints; and interpreting rules to maintain an overall food safety program that addresses both local and national concerns.

In addition, the Division of Food Safety continues an active partnership between its Bureau of Food and Meat Inspection and Florida's Agricultural Interdiction Stations issues. The real-time "24/7" communications systems that have been developed between the divisions have allowed for an increased surveillance of food products entering and leaving the state. These activities have resulted in enhancement of the safety of food through monitoring and rapid response to problems associated with the transportation of foods throughout the farm-to-table food continuum.

In the 2003 legislative session, the Florida Food Safety and Food Security Advisory Council was created for the purpose of serving as a forum for presenting, investigating, and evaluating issues of current importance to the assurance of a safe and secure food supply to the citizens of Florida. The Department will host this council that will bring together diverse partners to address common food safety and security issues of concern in Florida.

The Department provides Certificates of Free Sale and good manufacturing practice documents for food products that are used for human consumption and exported to other countries. Businesses requesting such documents must be permitted by the Department and in good standing. In fiscal year 2002-03, the Department processed and issued more than 9,000 Certificates of Free Sale.

The Department in cooperation with the USDA periodically conducts inspections for food products illegally imported for sale. Products found include illegal invasive plants, plants and animals from prohibited pest-infested areas, and meats from Foot-and-Mouth Disease, hog cholera and mad cow disease areas.

Chemical Residue Laboratory

The Department's Chemical Residue Laboratory analyzes samples collected throughout Florida for chemical contaminants. These samples are collected from farms and through processing and distribution channels. All foods grown or manufactured inside or outside of Florida, including foreign countries, are subject to unannounced collection and analytical testing to assure adherence to the standards of wholesomeness, safety, freedom from contamination, and proper representation in labeling.

One of the Department's major missions is to protect the public from unsafe foods by monitoring pesticide and other chemical residues for the enforcement of established tolerances. The Department also provides pesticide residue data for federal agencies to use in making dietary risk assessments. During the 2002-03 fiscal year, the Department conducted 349,802 separate determinations for chemical residues on 3,676 food samples.

Pesticide Residues

The primary focus of the program is the analysis of pesticide residues in fresh fruits and vegetables. A total of 3,387 fresh fruit and vegetable samples, including 1,477 samples for the USDA Pesticide Data Program, were analyzed; 50 percent of the samples were grown in Florida; 16 percent of the samples collected were imported samples. Products from 27 countries were sampled. Of the imported samples, 78 percent were grown in Mexico and South American countries. Of all fruit and vegetable samples collected in the state regulatory program, 43 percent contained pesticide residues.



The Department's monitoring program is one of the most comprehensive monitoring and enforcement programs in the nation and provides the residents of the state with valuable information concerning the safety of the food supply. In addition to assuring the proper use of pesticides by Florida growers, a thorough testing program may enhance the status of Florida-grown produce in international markets.

Analysis of statistics on Florida grown fruits and vegetables, as well as consumption statistics, are used to develop sampling plans which will target products most likely to contain illegal residues. More than 130 pesticides are detected using current multiresidue methods; this is an increase of 30 percent since last year. Just over 2 percent of samples analyzed exceeded established tolerances and guidelines. Of the 26 fruit and vegetable violations identified in fiscal year 2002-03, 16 samples (62 percent) were of imported produce.

Pesticide residue violations led to 10 separate investigations of food adulteration incidents during fiscal year 2002-03. Two separate incidents involved basil imported from South America. The source of the violative product was tracked from the wholesaler in Tampa to the Miami importer and back to the specific farms. The violative product was stop-saled in the warehouse and destroyed. In another investigation, orange samples labeled as organic were collected by law enforcement officials who suspected mislabeling and analyzed for pesticide residues.

Other commodities involved in adulteration incidents were malanga, potatoes, squash, okra, strawberries, bok choy, escarole, peaches, cantaloupe, yams and lettuce. Whenever possible, field personnel traced back product to its origin and took additional samples.

The Department also focused on enforcement of crisis exemptions which were granted to beekeepers for the use of coumaphos to control varroa mites in bee hives. A method was developed for the analysis of 12 pesticides in honey, including coumaphos, and selected samples collected at individual beekeepers were analyzed. Additional special surveys to monitor crisis exemptions are planned for other commodities/pesticide combinations next year.

In support of the exportation of Florida grapefruit, three separate surveys (fall, early spring and late spring) of grapefruit destined for export to Japan were completed; 94 samples of grapefruit were analyzed for more than 100 pesticides and the tabulated data provided to grapefruit growers.

Antibiotic Residues

The Department continued to analyze seafood for the banned antibiotic, chloramphenicol. In fiscal year 2002-03, 175 shrimp samples and 109 crabmeat samples were analyzed at sub-part-per-billion levels using an accurate and sensitive method developed by Department chemists. This method has been adopted by FDA and other states for use in their regulatory programs. Two shrimp samples and 13 crab samples contained violative levels of chloramphenicol, and the product was detained or destroyed.

Food Pathogens and Other Problems

The Department's Food Laboratory uses chemical, microbiological, molecular, and physical methods to analyze foods processed or sold in Florida. These analyses help to ensure a safe and wholesome food supply by verifying the absence of adulterants, especially microbial food pathogens and food allergens, by verifying conformance with standards of safety and quality, and by ensuring accurate representation in labeling and nutritional claims. Emphasis is placed



on current and emerging food safety issues, such as microbiological contamination, unapproved food components, filth, chemical and heavy-metal contaminants, new food and food packaging technology, dietary supplements and other label and nutritional claims, and natural toxicants.

The Food Laboratory implemented a significant initiative to enhance the Department's capability to respond to a bioterrorist incident involving the food supply. This Domestic/Food Security initiative, accomplished in partnership with other state and federal agencies (Florida

Department of Health, U.S. Food and Drug Administration and U.S. Center for Disease Control) included a major laboratory renovation, the acquisition of sophisticated analytical equipment, and substantial training of staff in procedures for processing and analyzing samples suspected of containing bioterrorist threat agents. In addition, the Food Laboratory is an active member in national laboratory networks formed in response to the threat of bioterrorism, and the state of Florida is increasingly recognized as a national leader in food safety and security.



Testing of food products using molecular methods, especially nucleic acid analyses based on the polymerase chain reaction (PCR), was significantly expanded during the year. Molecular methods for analysis of noroviruses, *Vibrio parahaemolyticus* and *Vibrio cholerae* in shellfish are undergoing development or validation, and PCR was also used to test animal feed for contamination by prohibited materials.

During fiscal year 2002-03, the Department performed 53,725 analyses on 9,910 samples, increases of 11 percent and 4 percent, respectively, from fiscal year 2001-02. The majority of samples (8,590) were received under Division of Food Safety inspection programs, but significant numbers of samples were received from other divisions of the Department and also (1,320) under the joint state and federal Microbiological Data Program (MDP). A total of 130 samples were analyzed in response to consumer complaints, and seven environmental samples were analyzed for anthrax contamination. Out of 53,725 total analyses performed, 48,704 analyses, representing 91 percent of state program samples, were found to be in compliance with all applicable food safety requirements.

Food safety issues remain a major emphasis of the analytical program. With the continued identification of foodborne illness outbreaks, increased monitoring for pathogens in ready-to-eat food is necessary.

Microbiological pathogen analyses focused on *Salmonella*, *Listeria monocytogenes*, generic *E. coli*, and *E. coli* 0157:H7. Targeted products for these analyses included ready-to-eat produce, processed meats, ground beef, cheese, sushi and sandwiches. As a result of outbreaks, the Department continues to monitor fresh orange juices, imported herbs, prepared salad greens, and fresh sprouts. Additionally,

analyses of bottled and vended water for adulteration by either microbiological or chemical contaminants represented a significant component of state surveillance programs.

In its third year, the MDP enabled Florida, California, Colorado, Michigan, New York, Ohio, Texas, Washington, and Wisconsin to systematically monitor fresh produce commodities for *Salmonella* and generic *E. coli*. A total of 1,320 samples were analyzed, a 2 percent increase over the prior fiscal year. Commodities tested included leaf and romaine lettuce, domestic and imported tomatoes, cantaloupe and celery. Expansion of this program, both in types of analyses performed (adding testing for *Shigella* and *E. coli* 0157:H7) and commodities tested is expected.

In August 2002, the Food Laboratory was certified by the FDA for micro-biological testing of shellfish in support of the National Shellfish Sanitation Program (NSSP). Significantly, the Food Laboratory was certified after the initial evaluation for certification, and the microbiology section was commended for this accomplishment.

Other areas of analysis emphasis include monitoring juice products, honey, syrups and vanilla for fraudulent formulations or adulteration; ground meats for fat claims and species identification; and artificial colors in candy, sodas and bakery products. Bakery products are also monitored for insect filth and rodent contamination. Significantly, continued surveillance for ephedra products was an important aspect of the analytical program. The Department is continuing an extensive survey on the nutritional labeling of low-carbohydrate and diet foods, and this study has been complemented by an additional one of products labeled sugar free or no sugar added.

In response to concerns regarding safe levels of mercury in fish, a large and ongoing survey of mercury levels in swordfish, tuna, shark, grouper, snapper and mahi-mahi was initiated. Additionally, a survey of histamine levels in swordfish, tuna and mahi-mahi was

conducted, and based on these results, a more focused survey of mahi-mahi was begun. Monitoring of milk allergens was added to continuing testing for undeclared egg and sulfites in food products, and an initial survey of gluten in wheat products is in progress. Unexpected high levels of sulfites in sun-dried tomatoes, discovered during routine testing, have prompted an in-depth investigation.

The Food Laboratory, because of the recognized caliber of its molecular testing programs, was one of two state agriculture labs invited to participate in the development of a rapid detection method for noroviruses in contaminated shellfish. This collaboration is intended to serve as a model of cooperation among state and federal agencies such as the FDA, USDA and CDC. The rapid, molecular method developed reduced sample preparation time from eight to 12 hours to one hour. The molecular section also collaborated with the FDA seafood lab at Dauphin Island on an annual proficiency program for real-time PCR detection of *Vibrio parahaemolyticus* and *Vibrio cholerae* in shellfish, and this section participated in a six-month pilot program monitoring the presence of prohibited protein materials in animal feed.

Domestic Security/Food Security

Recognizing the increasing potential for terrorist actions against the food supply, the Department has been actively involved in enhancing the awareness of food security issues with the food industry and the general public. Information on this important issue is provided to all sectors of the industry regulated by the Department. Industry has received informational brochures and web site contacts for updates such as current developments in the

implementation of Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Additionally, the Department participated in the Food and Drug Administration's "Operation Liberty Shield" by delivering specific information to potentially high risk industries. The Department continues to work in partnership with the FDA, USDA, CDC, the State Security Domestic Task Force, as well as other federal, state and local agencies on food security issues.

In February 2003, renovation of approximately 1,300 square feet of the Food Laboratory facility was completed, and the Hazardous Culture Laboratory was certified as a Biosafety Level 3 (BSL-3) facility. This approximately \$600,000 renovation, funded by a special appropriation from the Florida Legislature, provides the Department with a state-of-the art laboratory for the analysis of dangerous pathogens such as *Bacillus anthracis*. The Hazardous Culture Laboratory operates under an independent HVAC system, and the renovation included a diesel back-up power generator to ensure power supply in an emergency. This facility provides the Department with critical capability to respond to a bioterrorist attack or food outbreak.

Following certification of the Hazardous Culture Suite, the Food Laboratory received Select Agent Registration for possession of hazardous pathogens, subject to federal regulation and was accepted into the Laboratory Response Network (LRN) coordinated by the Centers for Disease Control and Prevention (CDC). Participation in the LRN complements agency leadership in the Food Emergency Response Network (FERN). These national laboratory networks were formed as a response to Domestic Security issues, and the Food Laboratory was the first state food lab operating outside a traditional public health laboratory accepted into the LRN.

Renovation of the laboratory was complemented by ongoing acquisition of sophisticated analytical instruments and training of staff in handling and analysis of bioterrorist threat agents. Staff attended training at CDC in Atlanta, regional FDA and USDA laboratories, workshops, teleconferences, and at the Food Laboratory itself. Additionally, Department staff gave lectures and presentations on Domestic/Food Security issues at conferences throughout Florida as well as in Los Angeles, San Francisco and Chicago.

The Food Laboratory, in conjunction with the Bureau of Chemical Residue Laboratory, made significant progress toward the goal of ISO 17025 accreditation. Accreditation to this international standard is increasingly recognized as



the primary standard for assessing the quality of test laboratories. Staff attended an intensive three day ISO 17025 training course that provided practical information for attaining accreditation, and the Bureaus have begun final preparation for an ISO 17025 audit.

Collaborative Actions

The Department's Food Laboratory continues to provide data to the national FDA supported eLEXNET data system, which allows real-time exchange of information concerning potential or suspected food supply problems. Protocols for automated transfer of data from the Food Laboratory Information Management System to the MDP database have also been implemented.

Education and Training

Educational opportunities for laboratory personnel were emphasized in order to remain on the leading edge of science and technology. In July 2002, the Department hosted the Fifth Foodborne Pathogen Analysis Conference, held in conjunction with the 39th Annual Pesticide Residue Workshop. Both conferences are highly regarded for their excellence in content and speakers; both allow Department chemists and microbiologists to share the latest developments in technology with experts from other agencies and nations for microbiologists working in the identification of pathogens in foods.

Milk Products

The Department ensures that dairy products purchased by Florida consumers are wholesome, produced under sanitary conditions, and correctly labeled. The Department regulates the production, transporting, processing, distribution, and labeling of milk and milk products. It establishes standards for these products, whether they originate in Florida or other states.

The Department issues permits and conducts inspections for Florida dairy facilities. As of June 30, 2003, these facilities included:

- 201 dairy farms
- 16 milk processing plants
- 65 frozen dessert manufacturers
- 16 single-service milk container manufacturers
- 33 milk distribution depots
- 6 milk receiving, transfer, and wash stations



In addition to its inspection program, the Department collects and tests samples from dairy farms and processing plants for compliance with established product quality standards. These samples are collected by field inspectors and tested in a division laboratory for excessive bacteria and somatic cells and for the presence of antibiotics, added water, and other impurities.

The programs administered by the Department are part of a uniform national dairy sanitation program outlined in the Pasteurized Milk Ordinance (PMO) published by the U.S. Food and Drug Administration. Likewise, most of the dairy product quality standards enforced by the division are part of the PMO or the Code of Federal Regulations. As in all states, both the PMO and the relevant sections of the Code of Federal Regulation have been adopted in state statute or rule.

The fact that all states have adopted uniform regulations makes it possible to ship dairy products from state to state with a minimum amount of interstate regulatory interference. The interstate shipment of dairy products is coordinated through the Interstate Milk Shippers (IMS) Conference, an organization that includes representation from FDA, the dairy industry, and all state dairy regulatory agencies.

An IMS Rating Officer routinely performs surveys for the purpose of determining compliance with the PMO. In addition, the FDA will conduct periodic check ratings to determine if both the industry and state regulatory agency are in compliance with the requirements in the PMO. A state that fails its FDA inspection can be denied the right to ship Grade A milk across state lines. During fiscal year 2002-03, the IMS Rating Officer performed 18 plant surveys and eight farm group survey's involving 123 dairy farm inspections. FDA conducted one plant check rating and two farm group check ratings involving five dairy farm inspections.

The Florida Dairy Industry

Florida dairy farms are large, milking an average of about 700 cows each. In spite of the hot, humid climate, these cows average about 15,547 pounds of milk per year or about six gallons per day per cow. Although the state's 147,000 dairy cows rank it first in the Southeast and among the top 15 states nationally, Florida still imports approximately 25 percent of its milk, and the proportion of imported milk is growing. Florida's 16 Grade A milk processors include four Dean Food plants, two Publix plants, two Winn-Dixie plants and two plants owned by National Dairy Holdings.

Dairy Inspections

The Department's 12 field inspectors are stationed from Miami to Pensacola. They make regular visits to dairy farms and processing plants to inspect, consult, and collect samples. During the past year, dairy inspectors performed 2,016 inspections at dairy farms and plants in Florida. They also collected 15,669 samples of milk and milk products. They made 891 inspections of milk transport tankers and bulk milk haulers.

Monitoring Antibiotics in Milk

The industry has established a rigorous program to monitor milk for contamination with residues of antibiotics commonly used to treat cows on dairy farms. During the year 55,893 transport tankers representing more than 2.6 billion pounds of milk were checked for antibiotics in Florida. Only 17 (1 in 3,288) of these tankers, were found to contain traces of antibiotics. All 17 loads were dumped. Nationally about 1 in 1,500 tankers of milk are found to have antibiotic contamination.



Checking the Weight of Milk Products

Florida recently participated in a national weighing program sponsored by the Federal Trade Commission. The Department has several inspectors trained to make official weights of milk products and has been monitoring weights of processed milk containers in Florida for more than 16 years. During the year, inspectors conducted 157 of these weight checks and 90 percent of the lots passed.

Aquaculture

The Division of Aquaculture was created in 1999 by the Florida Legislature and is responsible for six programs: aquaculture certification, aquaculture leasing of sovereignty submerged land, shellfish resources development, shellfish processing plant certification, shellfish harvesting area management, and technical support.

Aquaculture Certification Program

Chapter 597, Florida Statutes, established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the Best Management Practices provided in Chapter 5L-3, Florida Administrative Code. The Aquaculture Certificate of Registration is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state. Site inspections are conducted at aquaculture facilities to ensure compliance.

The Department certified 1,071 aquaculture facilities during fiscal year 2002-03. Shellfish producers make up 53 percent of certified farms, 21 percent are ornamental producers and 20 percent produce food fish, with the remaining producing live rock, alligators and bait. Certified farms are found in 61 of the state's 67 counties, with the highest number of certified farms (20 percent) occurring in Levy County. Dixie and Hillsborough counties are next with 10 percent each.

Sovereignty Submerged Lands Leasing Program

The Department is responsible for the Aquaculture Lease Program under the provisions in Chapter 253, Florida Statutes. Currently, the Department administers 685 aquaculture leases containing about 1,675 acres, and 79 shellfish leases containing about 1,114 acres. Aquaculture leases are located in Brevard, Charlotte, Dixie, Franklin,

Indian River, Lee, Levy, Monroe, Pinellas, St. Johns and Volusia counties. In response to its statutory mandate, the Department identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty Aquaculture Use Areas have been identified by the Department and authorized by the Board of Trustees in eight coastal counties, including Franklin, Dixie, Levy, Charlotte, Lee, Indian River, Brevard, and Volusia.

Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge, and protect the oyster and clam resources of the state, the Department is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During fiscal year 2002-03, the Department collected 81,134 bushels of processed oyster shell from processors in Franklin County, and planted 340,368 bushels on public reefs. Oyster resource development projects were conducted in cooperation with local oystermen's associations in four coastal counties. A total of 195,600 bushels of live oysters were re-planted on public reefs in Franklin, Wakulla, Dixie, and Levy counties.

Conserving Public Oyster Reefs

The Department is involved in a unique project applying its expertise and equipment to mitigate potential impacts on oyster resources in Apalachicola Bay. The Department is in a joint project with the Department of Transportation and the Department of Environmental Protection to enhance and restore public oyster reefs that may be adversely affected during the St. George Island Bridge Replacement Project. The mitigation plan involves the restoration of oyster reef habitat by placing processed oyster shell and live oysters on designated reefs.

Shellfish Harvesting Area Classification and Management Program

This program seeks to classify and manage Florida coastal waters for maximum use of shellfish resource, protection of public health, and promotion of a healthy coastal environment. The program is audited each year by

the U.S. Food and Drug Administration to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 38 shellfish harvesting areas are currently classified and managed statewide. During fiscal year 2002-03, the required annual update reports were completed for all 38 shellfish harvesting areas, and all of the shellfish harvesting areas requiring a triennial reappraisal report were completed. The data and reports support current classification and management for all shellfish harvesting areas.

During fiscal year 2002-03, a total of 676 sampling excursions were conducted to collect and analyze 16,227 water samples for fecal coliform bacteria and there were a total of 697 closures and reopenings of shellfish harvesting areas.

Shellfish Processing Facility Program

This program seeks to ensure wholesome shellfish products through inspection, education and enforcement of state regulations and national guidelines. The program is audited each year by the U.S. Food and Drug Administration to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 111 Shellfish Processing Plant Certifications Licenses were issued during fiscal year 2002-03. A total of 508 regulatory processing plant inspections were conducted.

Based on fiscal year 2002-03 inspection results, a total of 95 warning letters were issued and 16 settlement letters were issued. Action was taken to destroy shellfish products when they were found to be adulterated, contaminated, unwholesome, mislabeled, or exceeding the product shelf life.

Technical Support Programs

The Department provides substantial technical and administrative support for aquacultural and shellfish operations. Staff provides and participates in workshops, seminars and problem solving activities to help provide information to Florida farmers. In addition, staff manages contracts to researchers for legislative appropriation to provide quick answers to industry issues.



Best Management Practices

The Department continued to participate in a multi-agency task force in the development of water quality protective Best Management Practices (BMP) for citrus growers in the St. Lucie River and Estuary. The Department, through its Office of Agricultural Water Policy, conducted workshops to introduce a draft of the BMP rule that outlines the BMP-related requirements for growers seeking regulatory relief granted under the Total Maximum Daily Load Legislation. The Department is participating in efforts to adopt the BMP manual rule, which will extend several important regulatory incentives to participating growers in the region. The purpose of the rule is to affect pollutant (pesticides, nutrients, aquatic weeds, and sediment) reduction through non-regulatory programs, which have minimal adverse impacts to waters of the state.

Although, the Nitrogen BMP program was transferred

Conserving THE NATURAL Environment

to the Office of Agricultural Water Policy, the Division of Agricultural Environmental Services anticipates continuing participation in the program by providing technical assistance for BMP-related activities, as well as, scientific evaluation of their effectiveness once implemented. Data from effectiveness studies will support the Department's pesticide and nutrient management efforts.

Pesticide Registration

The Pesticide Registration Section registers pesticides that are distributed, sold, or offered for sale in Florida. During fiscal year 2002-03, a total of 13,444 pesticide brands were registered for sale and distribution in Florida. Approximately \$3.4 million in registration fees were collected to support the Department's pesticide programs.

Included in this total are special registration actions such as experimental use permits, special local need registrations, new active ingredient, and significant new use registrations that are processed, reviewed and issued through this office. These special registrations are reviewed by the Department and other affected state agencies through the Pesticide Registration and Evaluation Committee (PREC), a consensus determining body that is responsible for evaluating pesticides and advising the Department of risks posed by registration and possible solutions or actions for reducing risks to acceptable levels. The Registration Section's professional staff serves as both liaison and active participants in the PREC process. This fiscal year, 14 special local need registrations, eight experimental use permits, 10 significant new use and 19 new active ingredient registrations were reviewed and issued.

Scientific Evaluation Section

The Department continued its commitment to pesticide safety by evaluating the risks to human health and the environment, and by mitigating unacceptable risks. During the fiscal year 2002-03, the Department fielded inquiries on over 200 active ingredients registered in Florida. These reviews may have arisen in response to EPA Re-registration Eligibility Documents, public inquiries, registration activities, or by requests from other state or federal agencies. Major program areas this year included technical reviews for pesticide registration, ground and surface water protection and monitoring, endangered species protection, and termiticide efficacy review.

Registration Technical Reviews

The Department reviewed a total of 51 special category pesticide applications (new active ingredients, significant new uses, special local needs, and experimental use permits) during the fiscal year. The assessments were reviewed during the monthly meetings of the Pesticide Registration Evaluation Committee (PREC). Refinements by SES in modeling scenarios for the fate of pesticides and

ecological risk assessments for surface water enabled the Department to more thoroughly evaluate the potential risks of each of these products. All of the applications were approved after determining that the products would introduce no unacceptable risk to consumers, workers, applicators or the environment when used according to the label. In some cases, product registration was approved on the condition that additional technical studies are submitted or water quality monitoring be conducted to assure that the product would not adversely impact water quality, non-target species, or human health.

Pesticide reviews continue to be maintained in an electronic format for easy tracking and retrieval, and a database of adverse effects reports is routinely updated. Staff members of the Scientific Evaluation Section continues to attend training programs to upgrade and maintain technical skills. The section has also attended training programs focusing on aquatic weed control, invasive plants, computer software and modeling. In addition, Division of Agricultural Environmental Services staff members attended training on incident response and bioterrorism to prepare to assist in the event of future emergencies.

The Scientific Evaluation Section has also evaluated the environmental fate and potential toxicity of eight products submitted this year to the U.S. Environmental Protection Agency for emergency-use exemptions. Many of the methodologies recently developed for special category registrations were used to bolster the review procedure for these emergency exemptions.

Ground Water Protection

The Department's goal of managing pesticides to avoid ground water contamination was enhanced by several efforts.

- **The Lake Wales Ridge Monitor Well Network** — located in the citrus-rich Lake Wales Ridge of Florida and extending from Polk to Highland counties, this is a joint project by the Department, the U.S. Geological Survey, and the Southwest Florida Water Management District. The 31 wells of the network continue to be sampled quarterly to assess temporal trends in ground water pesticide and nitrate residue levels. This network allows the Department to evaluate the relationship between agrichemical use and ground water quality in a geographic area that is highly susceptible to contamination. The continued sampling of this network will provide important information on the fate of agrichemicals in vulnerable Florida soils and may also

provide an early indication of potential future drinking water threats. The Department communicates sampling results with stakeholders in order to promote responsible pesticide management and environmental protection. In addition, the Department began discussions with DEP on the development of a decision matrix to guide regulatory agencies and educate growers on types of voluntary and regulatory actions that could be taken in response to pesticide detections in the Lake Wales Ridge Monitoring Network.

- **Middle Suwannee River Basin** — The Department continues to provide technical support for a study examining the effect of agricultural management practices on nutrient levels in shallow ground water in the Middle Suwannee River Basin. Department staff collected samples biweekly from 12 monitoring wells. A field audit was conducted to assure compliance with quality assurance requirements.

- **Ground water monitoring** — The Department continues to explore the relationship between the use of arsenical herbicides and elevated levels of arsenic residues in ground water at golf courses. A series of meetings was held with other agencies and stakeholders to review existing data and develop a course of action. The Department requested that registrants of MSMA, a commonly used turf herbicide, conduct a prospective field study in Florida to determine if the product can leach to ground water. The Department is also consulting with other agencies regarding the assessment and management of other potential sources of land-applied arsenic.

During 2002-03, Department staff members reviewed the continuing progress of a retrospective ground water monitoring study involving the citrus herbicide, thiazopyr. The study included quarterly sampling of 13 shallow ground water monitoring wells located in areas adjacent to citrus groves at which the product had been used. This study has concluded in November 2002, and no detection exceeding the guidance concentration was observed.

The Department has also been involved in the planning stages of two water quality monitoring studies required as a condition of the registration of thiamethoxam. The Department reviewed the registrant's plans and designs for retrospective and prospective ground water studies, both of which are currently in progress.

Surface Water Protection

In 2001, the Division of Agricultural Environmental Services concluded a 12-year field study on pesticide

residues in surface and groundwater at a flat-woods ranch as it converted to a modern citrus operation. Surface and groundwater samples were collected across the site on a quarterly basis. Pesticides and nitrates were detected at significant concentrations in the tile drains as they drained the citrus groves. However, the retention ponds, which collected water from the tile drains, proved to be an effective means to ensure the timely degradation of the contaminants. No pesticides were detected in surface water samples collected down stream of the retention ponds.

The Department is finalizing a summary report of this study.

The Department continued to support surface water field projects located in the Indian River Citrus Area of the St. Lucie River watershed. Throughout the year, the Department provided technical support for an integrated effort to implement a comprehensive program of practices, including surface water monitoring that would enhance citrus production while protecting the quality of water resources. Selected activities included:

- Continuation of two projects in a demonstration citrus grove, which will assess the effects of different herbicide bandwidths on the off-site migration of nutrients, metals and pesticides.
- Participation in an interagency technical advisory committee to review scientific study proposals and resulting data that measure the effectiveness of implemented BMPs.
- Completion of an intensive sampling program in Ten Mile Creek, the results of which will be used to assess the effectiveness of BMPs implemented as a result of the adoption of the Citrus BMP Manual and accompanying rule. Data will also be used to demonstrate the validity of a surface water study decision support system and to evaluate the risk that pesticides and metals may pose to aquatic species detected in surface water. Aldicarb data from this study has been presented at the Southeast SETAC meeting and has been submitted for publication in a peer-reviewed journal.

The Department continues to review the results of the pesticide-monitoring network for surface water in South Florida. In order to support stewardship efforts, the Department began notifying registrants who sell or distribute products whose active ingredients are detected in surface water at concentrations of concern.

The Department provided technical guidance to the registrant on the study design and conducted a site visit in relation to three surface water studies conducted on fipronil. Fipronil was granted a conditional registration due to concerns over the potential to adversely impact neighboring surface water bodies. In cooperation with the

Department, the registrant has completed the sampling phases of two freshwater runoff studies and is conducting an estuarine runoff study

Water Policy

The Office of Agricultural Water Policy (OAWP) was established in 1995 by the Florida Legislature to facilitate and improve communications between federal, state, local agencies, and the agricultural industry on water quantity and water quality issues involving agriculture. Significant legislation passed in 1994, 1999, and 2000 provided for programs (Nitrate, Total Maximum Daily Load, and Lake Okeechobee Protection), which gave the OAWP statutory authority to develop and adopt by rule Best Management Practices. However, the OAWP responsibility extends far beyond BMP development.



Indian River Citrus BMP

The OAWP in conjunction with the Indian River Citrus League, University of Florida/ Institute of Food and Agricultural Sciences (UF/IFAS), the Florida Department of Environmental Protection (FDEP), the South Florida Water Management District, the USDA/Natural Resources Conservation Service and other state and federal agencies embarked on a multiyear development process to finalize the Indian River Citrus Area BMP manual, which was adopted by rule in August 2002. This BMP manual allows the growers an opportunity to conduct a comprehensive assessment of their operation and chose from a listing of BMPs in categories such as sediment control, nutrient management, pesticide storage and handling, and water volume control. There are a variety of practices addressed in the manual some of which require very little input on the

part of the grower while other practices may involve detailed changes to the structural setup of a grove. In many cases there is a huge capital outlay necessary to properly implement the structural improvements therefore, the OAWP has joined in partnership with the USDA Natural Resource Conservation Service and the Water Management Districts to offer cost-share monies for growers who qualify.

Lake Wales Ridge Citrus BMP

Prior to the development of these practices the Department utilized monies from the 1994 Nitrate Legislation to fund research that incorporated citrus production and water quality data. The resulting BMP, which was adopted by rule in October 2002 addresses timing and amounts of nitrogen based fertilizers that are applied throughout the year as well as recommendations for efficient management of irrigation inputs.

Leatherleaf Fern Production

Adopted in October 1996, the leatherleaf fern BMP manual was one of the first adopted by the Department for the protection of ground water resources. This manual focuses on all aspects of commercial leatherleaf fern production. UF/IFAS researchers from the Mid-Florida Research and Education Center have conducted various studies on managing a grower's input for optimal production while minimizing environmental impacts. Currently, a verification study is being conducted on various representative sites to determine the effectiveness of the practices contained in the BMP manual.

Future BMP Manuals

The OAWP is currently in the final stages of adopting a BMP manual for cow/calf, citrus, dairies, and other agriculture in the Lake Okeechobee priority basins. In addition, the OAWP has just completed a statewide row crop BMP manual that will begin the formal adoption process before the end of 2003. Under development is a statewide nursery plant manual as well as BMP manuals for other areas of interest, including the Peace River Citrus Production Area, the Suwannee River Basin, the Lake Okeechobee Watershed, and the Gulf Citrus Production area.

OAWP Field Personnel and Partnerships

Although the OAWP's primary objective is the development of BMPs, there are other arenas where the OAWP plays a key role in providing programs and policy

incentives for the agricultural industry. The OAWP field personnel, who are co-located with water management district offices throughout the state, help growers with the implementation of BMPs by providing technical assistance with state and federal programs, conservation planning, and cost-share information.

Suwannee River Partnership

The partnership, which is comprised of 24 state, local, and federal agencies as well as representatives from the private sector, began with the intent of addressing the sources of nutrient loading to the Suwannee River. The primary focus of the group continues to be finding economical and technically feasible solutions to environmental problems. Technical committees associated with the partnership have developed specific plans for addressing fertilizer application, animal waste and human wastes, monitoring and education, and outreach. Due to the enormous success of the effort in the Suwannee River Basin the partnership recently expanded to begin a similar process in the Santa Fe River Basin.

Facilitating Agricultural Resource Management Systems (FARMS) Program

This program focuses on the Water Use Caution Areas in southwest Florida. The primary goals of the program are to implement water quality and quantity BMPs that should provide for water quality improvement and reduced aquifer withdrawals, as well as conserving, restoring, or augmenting the area's water resources. In addition, these programs offer incentives to agricultural producers to incorporate irrigation practices that will promote water resource sustainability in the future.

Tri-County Agricultural Area (TCAA) Program

The purpose of this program is to help growers in Putnam, St. Johns, and Flagler counties implement verified nutrient and irrigation practices that would otherwise place a substantial burden on the producers. This program, which allocates cost-share monies to growers in that area is funded through a partnership between the St. Johns River Water Management District, the OAWP, and USDA/NRCS.

Soil and Water Conservation Council (SWCC)

With the recent legislation changes that were enacted after the 2003 Legislative Session, the expanded SWCC will reassume a key role as advisory council to the Commissioner

of Agriculture. In addition to agricultural producers, this expanded council now includes representatives from the five water management districts, the Florida Department of Environmental Protection, UF/Institute of Food and Agricultural Sciences, USDA/Natural Resources Conservation Service, the Florida Legislature, and the environmental community. The purpose of the council is to assist the Department with the development and implementation of conservation programs. The OAWP will continue to play an active role in facilitating programs and policies approved by the Commissioner and the SWCC.

Mobile Irrigation Laboratories (MILs)

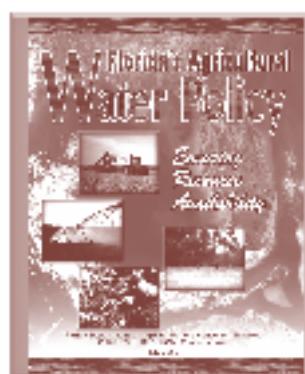
The OAWP, recognizing the invaluable service the 16 MILs provide to the state's agricultural industry, has continued to support various programs associated with the MILs. The MIL programs are designed to provide assistance to the USDA/NRCS field staff as well as OAWP field personnel with site specific irrigation testing, diagnostics, and recommendations for system upgrades consistent with conservation planning and BMP implementation.

State and Federal Cost-Share Programs

In order to assist agricultural producers in the implementation of BMPs the OAWP has developed working partnerships with various state and federal agencies. Through these partnerships, monies are available for agricultural producers who chose to implement BMPs that otherwise would be too costly. Currently, the OAWP has active agreements with USDA/NRCS, St. Johns River Water Management District, Suwannee River Water Management District, Southwest Florida Water Management District, South Florida Water Management District, several of the state's Soil and Water Conservation Districts, and most of the state's Resource Conservation and Development Councils.

Florida's Agricultural Water Policy

At the request of the Commissioner of Agriculture, the OAWP took the lead role in the development of Florida's Agricultural Water Policy Document, released on July 15, 2003. The development of this document utilized the knowledge and experience of nearly 100 leaders in the agricultural, environmental,



urban, and regulatory arenas. The final product outlines the key issues associated with the supply, use, conservation, and allocation of Florida's limited water resources. The policies outlined in the document encourage all water users to work together in order to ensure resource availability in the future.

Quality Assurance and Quality Control (QA/QC)

The Department continued to provide QA/QC audit service to assure that field studies were conducted according to appropriate procedures. Audits were performed for the Florida Aquaculture Water Quality Study and the Suwannee River Water Quality Nitrate Project.

Endangered Species Protection Program (ESPP)

The Department is Florida's lead agency for pesticide regulation and is responsible for coordinating strategies for protecting federally listed endangered species from pesticide use in Florida. Within this role, the Department administers the ESPP to ensure that pesticides will not harm those species listed as endangered or threatened by the U.S. Fish and Wildlife Service, or the habitat critical for their survival. This year, the ESPP coordinator assembled and prioritized those previously developed Endangered Species Protection Plans that were most amenable to completion and incorporation into Endangered Species County Bulletins — the main component of the program. These plans, which will provide the bulk of the narrative within the County Bulletins, were originally developed by the Endangered Species Task Force, a group of experts from government, industry and non-profit organizations in Florida charged with developing the plans and providing expertise in implementing the program. This information will be accompanied by GIS maps generated using endangered species occurrence data developed by the Florida Natural Areas Inventory (FNAI) and land cover (habitat) data developed by Florida's Water Management Districts. The accuracy and detail of the maps will not only aid in the protection of Florida's endangered species from the use of pesticides through risk mitigation, but should minimize the impacts of these strategies on pesticide users by reducing the area in which these restrictions are appropriate.

EPA headquarters, U.S. Fish and Wildlife Service in Jacksonville, the Florida Division of Forestry, and FNAI have reviewed six draft County Bulletins. These are the first bulletins to incorporate habitat maps created using GIS

data from FNAI. The bulletins for Gadsden, Liberty, Jackson, and Gulf counties cover three endangered plant species: the Florida torreya, fringed campion, and Chapman's rhododendron. The Okaloosa and Walton County bulletins include species information and habitat maps for the Okaloosa darter, the first fish species to be incorporated into a County Bulletin for Florida. Additional reviewers are being considered, including individuals from various state and federal agencies.

In addition, draft County Bulletins for southern and central Florida that incorporate species information and habitat maps for the Everglade snail kite are being reviewed within the Department. A total of 10 habitat maps were required to cover the Everglade snail kite's entire range. These maps are now incorporated into County Bulletins for Broward, Collier, Dade, Glades, Hendry, Indian River, Lake, Marion, Martin, Monroe, Okeechobee, Osceola, Palm Beach, Polk, and St. Lucie counties. The Everglade snail kite is the first bird species to be covered by a County Bulletin in Florida.

Termiticide Efficacy Review

Following adoption of the Termiticide Efficacy Rule (5e-2.0311, Florida Administrative Code), the Department met with numerous registrants to discuss the data submission format and the review process. To date, the Department has received efficacy packet submissions from several companies and the Scientific Evaluation Section has begun the review process on those products.

Pesticide Laboratory

The Department's Pesticide Laboratory analyzes a variety of official samples, including formulated pesticide products, pesticide application tank mixes, and environmental samples to support compliance investigations and environmental monitoring activities. Formulation analyses are performed in accordance with Florida Statutes for label guarantee, and tank mix samples are performed to assess the use percentages of the active ingredient. Both formulated product and tank mix samples are screened for contaminants of other pesticides to ensure product safety and accuracy. A total of 450 formulation and/or tank mix samples were analyzed, requiring 10,938 sample determinations to verify whether the correct percentages of guaranteed active ingredients were within allowable tolerances. The rate of violations incurred for product formulations testing this past year was 4.8 percent. This is a notable increase in the violation rate from last

year's 1.4 percent and is due in part to the implementation of a directed sampling approach developed jointly by the Pesticide Laboratory and the Bureau of Compliance Monitoring. This new approach to sampling formulated products is being implemented to test a wider scope of products in a variety of categories to ensure public safety and minimize environmental impacts.

In support of registration and technical assessment activities, 436 environmental samples were analyzed, requiring 32,199 determinations. The laboratory also responded to a wide variety of method development requests during the past year. Method development work for individual parent compounds and/or metabolites was conducted in a variety of different formulated product materials and/or environmental matrices for Carfentrazone-ethyl, Disodium Octaborate Tetrahydrate, Thiophanate-Methyl (LC/MS), Dithiopyr, Methyl Bromide, Chloropicrin, Tribufos (GC/MS), Glyphosate, Diphasinone and Metaldehyde.

To ensure a high quality of analysis, the laboratory analyzed 907 quality control samples, requiring 6,452 determinations. Quality assurance samples were analyzed for method development and validation as well as for control of routine sample analyses. Significant gains were made with regard to quality assurance during this past year. Specifically, a number of new standard operating procedures were written or updated and subsequently implemented. In addition, the laboratory's technical training program was expanded to include in-house proficiency samples.

The laboratory reported approximately the same total number of sample determinations during fiscal year 2002-03 (49,589) as were reported for fiscal year 2001-02 (50,118). However, there was a decrease in the total number of samples from 4,092 in fiscal year 2001-02 to 1,793 during fiscal year 2002-03. This decrease in overall sample numbers resulted from the transfer of nutrient analyses to the Feed, Seed and Fertilizer Laboratory. The resulting increase in sample determinations (as a function of sample numbers) resulted from the expanded pesticide screening capability developed for environmental sample analyses during fiscal year 2002-03.

The laboratory acquired two replacement High Pressure Liquid Chromatography (HPLC) systems for its routine ground water monitoring analyses that included new LC pumps and detectors which are used for the Lake Wales Ridge ground water monitoring project and to support the demand for increased carbamate and glyphosate analyses. Additional funding is anticipated from the Department of

Justice to purchase additional mass spectrometers and instrument systems with the capability to conduct air monitoring sample analysis. The laboratory also implemented a client/server software system that is used to analyze chromatographic data and is in the process of



developing a database to manage its analytical reference standard materials. Finally, the laboratory is close to completing the implementation of its Laboratory Information Management System which will help to further increase the overall quality and efficiency of data generated for the laboratory's customers.

Operation Clean Sweep

In fiscal year 2002-03, the Department of Environmental Protection (DEP) received \$200,000 in funding, an appropriation from the Solid Waste Management Trust Fund as part of the General Appropriations Act, to continue Operation Clean Sweep to collect and dispose of unusable pesticides. The program was coordinated by the Department, DEP, the University of Florida's Institute of Food and Agricultural Sciences (IFAS), and pesticide user groups. It is a free program to any pesticide applicator/user for disposal of canceled, suspended and unusable pesticides. Prior to 2003, the Department held pesticide collections at pre-determined sites. This year the program's structure was changed in that the Department coordinated pesticide pickups at locations where people had pesticides to dispose of. In 2003, more than 126,000 pounds of canceled, suspended and unusable pesticides were collected at a cost of \$137,596 with 145 total participants.

Pesticide Compliance Section

The Department investigated 52 complaints involving alleged violations of the Worker Protection Standard (WPS) as compared to 46 from the previous fiscal year. Of those 52 investigations, 41 were re-inspections to verify compliance with the WPS from actions taken in the previous fiscal year. In addition, the Department conducted a total of 351 worker protection inspections, as compared to 337 in the previous year.

The Department conducted 3,221 pesticide inspections at users, dealers, distributors and manufacturers during the fiscal year. The Department also issued 348 enforcement actions during the same period. There were 473 samples collected for pesticide formulation and pesticide residue analysis. The Department investigated 375 complaints and referrals involving violations, such as improper pesticide use, adverse environmental effects and distribution of unregistered products. Forty-three fines were issued for violations of the pesticide laws during the fiscal year, and \$50,407 collected over this same reporting period. The Department inspected 77 wells that apply chemicals through irrigation water to assure adequate ground water protection devices had been installed. These programs help ensure pesticides are properly registered, labeled and sold only to those individuals who have been trained in their use.

Pesticide Certification and Licensing

The Pesticide Certification and Licensing Program helps ensure a safe food supply, healthy environment, and the protection of workers and the public through training and competency testing of pesticide users. This program is coordinated with the U.S. Environmental Protection Agency (EPA) and the University of Florida (UF) to ensure consistency in educational efforts and certification standards. EPA has approved the Department's program as meeting federal pesticide applicator certification requirements, and EPA staff provide limited guidance and program assistance as needed. UF assists by developing training manuals and certification exams and administering the majority of the certification exams.

In fiscal year 2002-03, the Department issued or renewed 2,873 pesticide applicator licenses and 479 pesticide dealer licenses. The total number of active licenses as of June 30, 2003, was 12,247. Department staff approved 556 pesticide training courses to issue continuing education units (CEUs) for pesticide applicator recertification and license renewal, making available

2,078.5 CEUs for license renewal. The Department also coordinated, participated in, or monitored 52.5 hours of training classes throughout the state, giving presentations on pesticide laws and regulation, licensing requirements, and procedures relevant to pesticide use.

Aldicarb Permit Program

The aldicarb program tracks the use of the restricted use pesticide aldicarb (Temik) in Florida to ensure protection of ground water from contamination with aldicarb residues. All uses of aldicarb must be approved prior to application, and soil type and wells must be identified for each application site before permits are issued. In fiscal year 2002-03, the Department issued permits for aldicarb to be applied to 3,490 sites in Florida, which included 311,453 acres of citrus, 42,792 acres of potatoes, 21,142 acres of cotton, 12,767 acres of peanuts, and 30 acres of soybeans. Permit applications may be submitted online at www.temikpermit.com or by fax or mail. Information about the aldicarb program and permit applications forms are available on the Department web site: www.safepesticideuse.com.

Worker Protection Program

The Department, in cooperation with other agencies and organizations in the agricultural community, continues to play a key role in the implementation of Worker Protection Standard (WPS) in Florida. This EPA regulation is designed to protect agricultural workers and pesticide handlers from the potential hazards of working with pesticides. The Department continues to assist growers, extension agents, training groups, and other trainers by providing interpretive guidance and training assistance on the WPS. Department staff also participated in two EPA sponsored pilot workgroups, one on hazard communication for agricultural workers, and the other on train-the-trainer methods and materials. These pilot programs are aimed at increasing training and pesticide safety awareness in the agricultural community.

In fiscal year 2002-03, the Department certified 182 WPS worker and handler trainers and provided them with trainer packages informing them of the Department's role in WPS and listing WPS resources for further assistance. The Department also issued 9,801 WPS training verification cards to Department-certified WPS trainers for distribution to the agricultural workers and pesticide handlers they train.

The Department maintains the www.safepesticideuse.com web site which provides information on WPS and other pesticide regulations and issues. This site enhances the Department's WPS outreach and training capabilities by providing a consolidated source of information and a comprehensive list of links and contacts for those needing more information on WPS.

The Department continues to act as the distribution center for EPA approved WPS outreach materials. A comprehensive supply of 34 items of outreach literature are kept in stock, and more than 13,000 pieces of this literature were distributed to WPS stakeholders in Florida in fiscal year 2002-03. To reach the diverse population of Florida, some of these outreach materials are distributed in several languages, including Spanish, Haitian-Creole, Cambodian, Vietnamese, and Korean.

Pest Control Section

The Department's Pest Control Section investigated 775 formal consumer complaints and conducted 2,893 licensed business inspections. Enforcement activities resulted in the issuance of 435 enforcement actions and the imposition of \$98,000 in fines. The Department issued or renewed 3,969 business licenses, 6,237 certified operator's certificates, 28,309 employee identification cards, and 2,258 limited governmental/private and limited lawn maintenance certificates. Certification examinations were administered to 2,263 applicants.

The Legislature provided authority to increase licensing fees and add nine additional pest control inspectors to assist with enforcement of Chapter 482, Florida Statutes. Inspector territories were reworked so that each inspector had a similar number of companies to inspect and new field offices were established in Vero Beach, Boynton Beach and Jacksonville.

Mosquito Control Section

The Department's Mosquito Control Section completed 29 inspections and investigated 10 complaints about mosquito control activities which resulted in the issuance of 14 advisory notices and one administrative action. There were 12 Public Health Pest Control certification training sessions provided and 314 certificates were issued or renewed. Aerial Public Health Pest Control Certification was issued or renewed for 39 people. Active licenses for the Section include 1,714 certified Public Health Pest Control operators and 128 aerial applicators.

Forestry Programs

New Initiatives

The Department's Division of Forestry is nearing completion of a "Living on the Edge in Florida" CD-ROM for educating community leaders and upper-level high school students about Fire Protection in the wildland/urban interface. A companion CD-ROM entitled "How to Have a FIREWISE Home" is being developed to help homeowner associations understand how to better protect their neighborhoods from wildland fire. The CD-ROM is being used as a model by other states for wildland/urban interface fire education.

The Wildfire Suppression Training System, which is being developed for beginning and experienced firefighters, continued to be refined and will be deployed in 2003. The development of this project has been extended to incorporate the latest technology. Testing the first full-length product and fielding the system is scheduled for fiscal year 2003-04. This will be the only simulator specifically designed for basic fire fighting.

The division is the first in the nation to offer an



Internet-based smoke screening tool that uses the latest computer technology and forecasted weather data to draw and view the potential impacts from a smoke plume. The smoke screening tool allows the burner the opportunity to plan and to view a smoke plume for a planned burn, either acreage or piles.

The division is developing a statewide lightning detection system that will enable live lightning data to be sent to a central server which can then triangulate and plot

lightning strikes on a map of Florida with the ability to zoom to specific regions. Lightning reports will be available online for each forestry district and will include locations, times and polarity of the strikes during the past 12 hours.

The division was designated as the lead management agency for a 37,253-acre tract of land in Franklin County, known as the "Profundus Tract," that was acquired by the Board of Trustees as an in-holding addition to the Tate's Hell State Forest. This additional acreage increases the land base of the Tate's Hell State Forest to 185,175 acres, second only to the Blackwater River State Forest's 189,848 acres. The primary management objective for this tract and the Tate's Hell State Forest is to restore the hydrology of the Apalachicola Bay System. The division will manage the State Forest for this objective and for multiple-use purposes.

Forest Protection

More than 2,600 media contacts were made as part of the division's wildfire prevention campaign through the use of Wildfire Prevention programs and Wildfire Mitigation Specialists. Also, Florida's FIREWISE Communities program continues to lead the nation, conducting more workshops than any other state. Five FIREWISE Communities workshops were completed during fiscal year 2002-03 for 200 participants. Two facilitator workshop training sessions were also conducted. There is continuing need throughout the state for these ongoing workshops as evidenced by the number of structures threatened or lost each year. In fiscal year 2001-02 more than 1,600 structures were threatened by wildfire and another 41 were damaged. This year, 529 structures were threatened, with 49 damaged.

The four Fire Management Teams assisted the Forestry Districts and Centers with prescribed burning and mechanical hazardous fuel reduction on approximately 9,019 acres, reducing the threat of damaging wildfires to 6,449 homes valued at over \$836 million.

The Division of Forestry had another successful year of training at the Florida Center for Wildfire and Forest Resources Management Training. Two classes of Basic Fire Control Training were held, with 54 new students receiving certification as Wildland Firefighters in Florida. The center provided 32 National Wildfire Coordinating Group courses to 573 Division of Forestry students, and 256 non-division students. The center also had 235 division students and 223 non-division students attend other management and

resource courses throughout the year. Forestry districts offered more than 100 National Wildfire Coordinating Group courses. More than 2,800 personnel are qualified for Incident Command Positions for use on "all risk" incidents statewide, and more than 850 of those are qualified for national mobilization. Starting this year, the Incident Command qualification records are maintained in the Incident Qualification System, and resources are dispatched through the Resource Ordering Status System for national response.

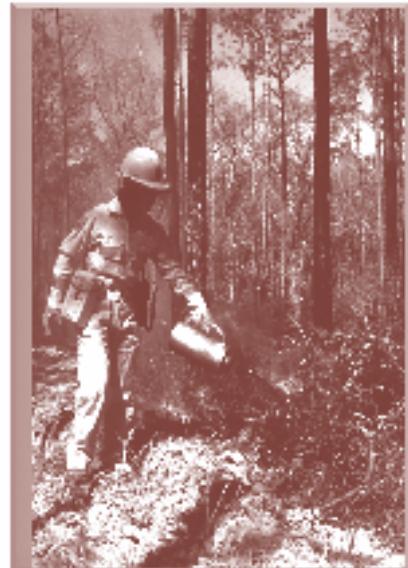
The division administered the Volunteer Fire Assistance Grant Program to volunteer fire departments that serviced communities with a population of 10,000 or less.

Approximately \$245,624 was awarded to 110 fire departments. This 50 percent matching fund enabled the fire departments to purchase approximately \$491,248 of equipment and supplies.

During fiscal year 2002-03, the division changed Federal Excess Personal Property screening programs from field screening at the Defense Reutilization and Marketing Offices to Internet based screening at the GSA Excess Express and the Forest Service FEPMIS program. Both systems are online for screening. Excess Express has given law enforcement and Department of Defense-sponsored agencies a priority over the Division of Forestry, thereby reducing the amount of property acquired by the division for fire use.

The division has a helicopter fleet of nine aircraft. A slower fire season, coupled with better availability of aircraft, eliminated the need for contractor aircraft this year. Fixed-wing aircraft flew a total of 2,058 hours, primarily for wildfire detection and control. Helicopters flew 668 hours, about 200 of which were for aerial ignition prescribed burning.

Florida has completed a three-year project to develop a statewide wildland Fire Risk Assessment application (FRAS). This tool allows land/fire managers as well as



county planners and managers to view and prioritize their areas of responsibility with regard to fuels management and fire prevention activities. The program identifies the specific problem (fuel, fire occurrence, or a combination of both) and then allows the local manager to "treat" the area, either with respect to fire occurrence or fuels. Once the treatment has been accomplished, the FRAS calculates the risk that resulted from the manager's selection. Managers can determine the most effective treatment for their area and do a cost benefit analysis to determine if that treatment is worth doing. According to the current set of published FRAS data, more than 5 million acres show up as red on the map, meaning that they need fuels treatment. The question "Are you living in the red?" will become the slogan for this program. The division's goal is to turn those map areas from hot reds and yellows to the cool greens and blues.

The division is also progressing with two educational school programs. The package and training for the interactive "Florida Wildfire Prevention" CD-ROM continues. It is designed to teach basic wildfire prevention and mitigation education, and comes with a teachers guide and supplemental materials for fourth- to sixth-grade students. The division also continues to promote the Fire in Florida's Ecosystems program, which provides fire ecology and prescribed fire instructional materials to educators. Each teacher is trained to use the Educators' Guide, student workbook, videos and posters, other supplemental materials, and the interactive "Burning Issues" CD-ROM. The hands-on activities are designed to help prepare fourth- to 10th-grade students for standardized testing.

The collection of live fuel moistures has reached its first annual milestone. Eight sites throughout the state have been collecting fuels and measuring its live moisture content. The species selected were determined by the local field unit based on vegetation that is viewed as the most problematic in a wildfire situation. Graphs of the various species and sites, as well as the current live moisture contents, can be viewed on the division's web page at <http://flame.fl-dof.com/Env/lfm/>.

Natural Resource Management

Natural resource management is accomplished through the Division of Forestry's natural resource programs on state forests and other state lands, land acquisition and technical assistance to private landowner's programs.

The division employs multiple-use principles to ensure

sustained and optimum productivity of Florida's 958,136 acres on 31 state forests. The most current scientific knowledge is used to ensure good stewardship and the practice of silviculture based on sound ecological principles. The division supports other state agencies as a cooperating manager on 275,000 acres and assists management on an additional 475,000 acres of public forests through special agreements with such public entities as the Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, water management districts and various counties.

Contracts worth approximately \$4.6 million were prepared to acquire additional acreage through the Department's inholding and addition program. A total of 53,382 acres were added to the state forest system during the year under Florida's Conservation Land Acquisition Programs.

All of these lands are managed to provide as many compatible uses and benefits to the public as possible while still providing protection for threatened or endangered species of plants and animals. Public recreational opportunities on these lands include fishing, hunting, hiking, picnicking, canoeing, camping, swimming, bird watching, bicycling and horseback riding. Approximately 636,700 visitors participated in these activities during the year.

The management of state forests generated revenues of approximately \$4,263,700 during the year, with an estimated \$2,595,000 coming from the sale of timber and the remainder coming from other state forest income including recreation fees.

The division pays 15 percent of the revenue from state forest operations to the counties in which these forests are located. The revenue returned to counties in 2002-03 totaled \$591,500. There are substantial direct and indirect benefits provided to local governments from the management of these lands.

Technical Assistance

The Division of Forestry provides technical assistance to help private landowners and communities make intelligent decisions to develop and achieve their objectives in forest land management.

During the 2002-03 fiscal year, the division offered 35,424 technical consultations to private landowners, primary and secondary wood-using industries and local governments. County foresters prepared forest management plans for 1,132 private forest landowners on 118,303 acres

and advised 360 landowners on tree-planting projects that reforested 10,963 acres.

Florida's Forest Stewardship Program is part of a national initiative to encourage private forest landowners to manage their properties for multiple-use. Through the division's leadership, 275 forest stewardship plans were completed on 62,647 acres. Nineteen more land owners were certified as Forest Stewards during the year.

The division's Andrews Nursery produced and sold 11.6 million bare root pine seedlings and 3.9 million containerized pine and wiregrass plants to 1,188 Florida customers. This produced more than \$1,119,695 in revenue.

The division administered \$1.2 million in federal urban and community forestry grants to nonprofit organizations, local governments, and educational institutions for tree planting and other projects that enhance communities' ability to care for their public tree resources.

Volunteers and volunteer groups within the division contributed 43,406.75 hours of work over the last fiscal year. Ten field units and the Forestry Youth Academy utilized the Volunteer Program and reported volunteer hours.

Field Operations

The division's forestry programs are implemented by its Field Operations staff located in 15 district offices across the state. These district offices were recently grouped into four regions, each under a deputy chief of operations. This organization and the concept of multifunctional manpower, resources, and equipment provide a more responsive and comprehensive approach to land management and fire control statewide.

Forest Resource Planning and Support Services Equipment

The Forest Resource Planning and Support Services Bureau has statewide responsibility for purchasing, managing, and maintaining all specialized fire fighting/suppression vehicles and equipment for the Division of Forestry, as well as staff support responsibility for management of the 15 major field unit repair facilities. The diverse fire fighting equipment managed includes 277 medium dozer transports, 30 truck-tractors, 27 heavy dozers, and 100 brush patrols with 300- to 750-gallon

water suppression capabilities, plus 200 4x4 pickup trucks equipped with 80- to 100-gallon water suppression capabilities. The division purchased approximately \$1 million in vehicle and equipment replacements in fiscal year fiscal year 2002-03 to fulfill fire suppression and land management responsibilities, meet safety objectives, and to ensure that emergency demands for fire readiness and other disaster assistance are met. Among major items purchased were transports, truck-tractors, medium dozers, patrols, and pickups.

The Division of Forestry purchased one Gyro Trac brush cutter in fiscal year 2002-03 for the Region 4 Mitigation Team at a cost of \$180,000. The Region 3 Mitigation Team also had an older Gyro Trac brush cutter that was having significant mechanical problems. The division negotiated with Gyro Trac to have the older Gyro Trac replaced at no cost as a condition for the new Gyro Trac purchase.

The division was able to purchase a transport, dozer, patrol, and fire plow through a grant fund obtained through the federal government. This grant saved Florida approximately \$220,000.

Telecommunications

The Division of Forestry has successfully field tested multimode land mobile radios using the narrowband and PL Tone capabilities. This programming, scheduled for completion in the fall of 2003, will give each field unit radio communication that is free from interference of neighboring units or offshore broadcasting.

The division has an annual reoccurring expense in excess of \$350,000 for commercial radio control lines within its communications system. A study has indicated that some of these lines could be eliminated immediately and replaced with a repeater system, thus improving efficiency. Additional radio frequencies, acquired from the Federal Communications Commission, will ultimately provide the means to operate this repeater system. Division telecommunication specialists evaluated a similar repeater system used by the Louisiana Division of Forestry and determined how this type of system can best be installed.

Microprocessor updates were accomplished on all division consoles. Training was provided for division technicians in fiber-optic splicing, and console and base station troubleshooting. Three technicians attended the USFS Incident Communications Training in Marana, Arizona, and Multi Agency Coordinating Group communications training for technicians continues.

A 36-foot communications/command trailer is being

built and will be ready for service in October 2003. This will complement one trailer already in existence and serve the division in northern Florida on major incidents.

Information Technology

The Forestry Information Systems Section performs such functions as supporting microcomputer applications, Geographic Information Systems (GIS), and Global Positioning Systems (GPS) for the Division of Forestry throughout the state. Related functions include hardware and software acquisition, installation, and maintenance; intranet/Internet web page management; application development and maintenance; and ongoing upgrading of computer networks. The use of GIS, GPS, and remote sensing for forest protection and management activities has expanded this past year. The application of these tools provides improved decision making through its integration with core business functions. The GIS section continues to develop the Division of Forestry enterprise database that gives division staff timely access to statewide data. Wildfire incident mapping provides crucial information to managers, the field, and the public. The division's web site, www.fl-dof.com, receives about 160,000 hits annually.

During fiscal year 2002-03, the Region 4 Mitigation Team and Forestry Station offices located in Punta Gorda and Ocala Forestry Station were networked and added to the division's computer domain. The division's Desktop Section focused on upgrading computers statewide from WindowsNT to Windows2000/XP operating systems, OfficeXP software, and converting from a Netscape mail system to Microsoft Exchange. The main focus of the GIS/GPS and Applications Sections were the development and deployment of the Fire Risk Assessment System. The division's technical staff has a strong working relationship with the Agricultural Management Information Center (AGMIC) staff and will be able to respond quickly to division needs for Oracle database changes and web page programming scheduled for this year's replacement of mainframe applications.

Construction

The Construction Section provides critical planning for, and oversight of, the division's fixed capital improvement, construction, and maintenance programs. This section ensures that the division's facilities can support its firefighting and forest management missions through the construction of new facilities and the inspection and

maintenance of existing facilities. During fiscal year 2002-03, an estimated 20,000 square feet of building space was constructed at a cost of approximately \$2.8 million. A typical project is the new Goethe State Forest Headquarters facility completed in 2002 at a cost of \$760,000. This complex, constructed on the Goethe State Forest, southeast of Chiefland, consists of an administrative building, shop facility and equipment shed. The new facility improves the division's capabilities for firefighting, forest management and access to the state forest.

Forest Youth Academy

The Division of Forestry's Youth Academy at the Goethe State Forest in Levy County offers juvenile offenders the opportunity to redirect their lives toward productive goals through occupational training programs. Providing training in both forestry and life skills, the academy works to develop these juveniles into useful members of Florida's society.

The academy began operating in June 1996 and is a low-risk residential program for youthful offenders 16 to 19 years of age. The strategy employed to change participants' lives is to correct their academic deficiencies by offering them a high school program based on competency learning. Another important element is teaching them marketable skills, such as firefighting, carpentry, small engine repair, welding, heavy equipment operations, culinary arts, and agri-science. Moreover, the academy teaches life skills such as budgeting, cooking and job interview skills that will be useful in the years following graduation from the academy.

Since the Forestry Youth Academy is also a second-chance school, the emphasis is on learning in a work setting. By doing this, students gain important work experience, which is the foundation of a work ethic. The by-products of this training are the many projects left for forestry and local communities to use and enjoy.



Agricultural-Environmental Leadership Awards

The Commissioner's Agricultural-Environmental Leadership Award is presented to Florida agricultural operations in recognition of their leadership in promoting progressive environmental practices. The presentation takes place annually during the Florida Farm Bureau Federation's annual meeting.

The winner is selected from a group of finalists by a selection committee made up of representatives from the Nature Conservancy, the state's Water Management Districts, the Florida Farm Bureau, the Florida Cattlemen's Association, the Florida Dairy Association, the Florida Department of Environmental Protection, the Florida Fruit and Vegetable Association, the Florida Citrus Mutual and the Florida Forestry Association.

There were three recipients of the 10th annual Commissioner's Agricultural-Environmental Awards: Aquatica Tropicals, Inc., of Plant City; Sun City Tree Farm, of Ruskin; and Williamson Cattle Company, of Okeechobee.

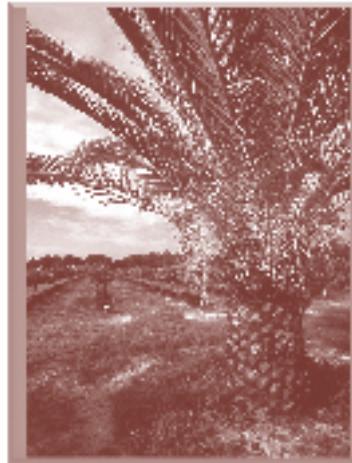
At Aquatica Tropicals, owner Marty Tanner's indoor facility has a heating and cooling system that controls water temperature and a water recirculating system that continually cleans and reuses more than 2 million gallons of water each day. The use of such a closed system eliminates potential pollution from surface or ground water while also dramatically reducing the need for ground water pumping. The system also saves labor in an industry that is labor intensive, and allows Aquatica Tropicals to uses less than half the labor of a conventional fish farm. Most of Tanner's innovative practices are not regulatory requirements, but a combination of business sense and environmental conscience.

Sun City Tree Farm is owned and operated by brothers J.C. and Eric Tort, who have demonstrated that conservation efforts can readily go hand-in-hand with economic interests as they have expanded their tree farm from five to 150 acres over the past 16 years while also implementing a

number of innovative practices that have significantly reduced water usage. Currently, 80 percent of their stock of approximately 100,000 trees is grown above ground in cloth bags as part of that root bag system, helping the Torts maximize the value of their plants while reducing the costs of fertilizer, weed control chemicals, fuel, irrigation, and labor. Trees grown in bags also show a faster rate of growth and are easily removed from the field for transport. An economic analysis of Sun City done by UF-IFAS several years ago found it to be one of the most efficient tree farms in the state.

Frank "Sonny" Williamson Jr. and his son, Frank "Wes" Williamson III, run the 9,000-acre ranch and citrus operation in Okeechobee while Wes' son, John Williamson, runs another part of the cattle operation and a catfish farm in west central Alabama. Most of the hammocks, pine forests, and swamps on the ranch have been left in their natural state to assure the aesthetic value of the property and promote the abundance of wildlife. Improvements made in pasturing and foraging have not only increased the land's capacity for cattle, but its capacity for wildlife as well. Growing citrus introduces other complexities, such as the large quantities of water needed for irrigation, a need that has been supported for nearly 10 years by an agreement with the Okeechobee Utility Authority that lets the Williamsons use treated water reclaimed from the Okeechobee area.

Studied and declared safe by the University of Florida, the water is clear and clean, and its use helps both agriculture and the local urban community.





Safeguarding CONSUMERS

Consumer Services

During fiscal year 2002-03, the Department of Agriculture and Consumer Services served as the state's clearinghouse for consumer information, complaints and protection. During this period the Department handled more than 43,915 written complaints; answered more than 318,350 calls; and produced 164,313 brochures, pamphlets and booklets for distribution to consumers.

The Department increased public awareness by providing speakers to civic groups and organizations throughout the state. The speakers conduct talks on important consumer related topics and provide educational materials such as brochures and handouts. In addition,

the Department utilizes its web page located at www.800helpfla.com to provide educational information to both the public and businesses. Consumers can access informational pages concerning areas the Department regulates and have the opportunity to complete and submit complaint forms online. Businesses are provided information and can access forms necessary to register their companies with the Department, ensuring compliance with state regulations. Additionally, the Department functions as the U.S. Consumer Protection Safety Commission's liaison in Florida regarding product recalls, inspections and investigations.

Call Center

During fiscal year 2002-03, the Division of Consumer Services Call Center handled more than 318,350 calls from consumers and businesses. The Call Center's 20-person staff operates the consumer hotline, 1-800-HELPFLA, and the Spanish consumer hotline, 1-800-FLAYUDA. Call Center personnel track and analyze data to provide current information to consumers. Eighty-two percent of those responding to surveys ranked the Call Center's service as outstanding.

The Call Center assists individuals daily with consumer-related issues, providing up-to-date information or referring callers to the appropriate governmental agency. Consumer questions cover various areas the Department regulates, such as business opportunities, dance studios, game promotions, health studios, motor vehicle repair, telephone sales solicitation, pawn shops, sellers of travel, solicitation of charitable contributions, telemarketing, and new car "Lemon Law." Additionally, these analysts respond to inquiries on a myriad of subjects ranging from landlord/tenant disputes, to buying clubs, sweepstakes and retail store regulations. The Call Center staff utilizes the Department's computer database to develop statistical information on the frequency and type of calls received. Each call is logged under a specific subject category in the database, which allows the Department to track the most prevalent consumer issues. This record of relevant consumer complaints enables consumer education efforts to be tailored to specific topics or areas.

Consumer Complaints

The Bureau of Mediation and Enforcement processes all consumer complaints filed with the division, both electronically and via mail. This bureau receives written complaints dealing with a variety of subjects, including complaints against businesses regulated by the Department as well as non-regulated business entities.

Division staff members attempt to resolve issues through informal mediation or refer complaints to the agencies with



jurisdiction. Because of the wide range of complaints received, each analyst is required to be knowledgeable in many areas. Some areas that are not regulated by other agencies and are handled by the Bureau of Mediation and Enforcement include beauty products, swimming pools, landscaping, and investments. The top five complaint categories during fiscal year 2002-03 were: telephone sales solicitations (Do Not Call) complaints, credit and banking, communications, motor vehicle repair, and home furnishings.

For fiscal year 2002-03, the number of complaints concerning non-regulated industries totaled more than 27,651 and resulted in more than \$734,000 in refunds to consumers. The non-regulated complaints received by the Department account for the majority of the complaints filed by consumers.

Lemon Law

The Department administers the Florida New Motor Vehicle Warranty Enforcement Act, commonly known as the "Lemon Law." Personnel respond to consumer complaints and inquiries, provide information about the law, and determine whether claims are potentially eligible for arbitration before the Florida New Motor Vehicle Arbitration Board.

In fiscal year 2002-03, the Department re-certified informal dispute settlement procedures submitted by General Motors, Honda/Acura, Nissan/Infinity, Rolls-Royce/Bentley, Saab, Volkswagen/Audi, Alfa Romeo, Porsche, American General/Hummer, Isuzu, Hyundai, Kia Motors, Daewoo, Lexus, Saturn and Workhorse Custom Chassis. These manufacturers are authorized to utilize the Better Business Bureau Autoline.

During fiscal year 2002-03, the division handled 23,960 telephone calls from the Lemon Law hotline, 1-800-321-5366. The division also processed 1,422 written arbitration requests and reviewed 3,523 Informal Dispute Settlement Program case files.

Regulated Programs

The Department is responsible for a variety of regulated areas including business opportunities, dance studios, game promotions, health studios, intrastate moving, motor vehicle repair shops, Do Not Call program, pawn shops, sellers of travel, solicitation of contributions, and

telemarketing. Each program area processes registrations and/or filings and responds to complaints. Each program falls under the jurisdiction of a statute that the Florida Legislature has created to protect consumers. Some of the programs require a bond or letter of credit to ensure consumer refunds in the event a business defaults.

Business Opportunities

The Business Opportunities Program requires individuals who sell or lease any products, supplies or services for the purpose of starting a business to register and disclose certain information to prospective purchasers. In fiscal year 2002-03, the Department registered 1,398 sellers of business opportunities and processed more than 1,206 written complaints. Additionally, consumers received \$194,533 in refunds and \$40,000 in administrative fines was posted.

Dance Studios

The Dance Studio Program requires the owner or operator of a ballroom dance studio to register with the Department. In some instances, registrants are additionally required to post a surety bond or letter of credit. For fiscal year 2002-03, the Department registered 153 dance studios, processed 53 complaints, refunded \$7,256 to consumers and posted \$9,000 in administrative fines.

Game Promotions

The Game Promotions Program requires individuals who conduct contests, games of chance, or gift enterprises conducted in Florida and other states and connected with the sale of consumer products or services where the elements of chance or prize are present to register with the Department. During fiscal year 2002-03, the Department processed more than 3,500 game promotion filings and over 100 complaints. Additionally, the Department posted more than \$235,000 in fines.

Health Studios

In accordance with Florida's Health Studio Law, the Department regulates health clubs or those that offer health club activities, or that offer equipment used to further physical exercise. Some health studios are required to post security to satisfy future claims that may arise as a result of violations of Florida law. During fiscal year

2002-03, the Department registered 1,162 health studios, processed 870 complaints, refunded \$134,668 to consumers, and posted \$19,032 in administrative fines to various studios.

Intrastate Moving

Effective July 1, 2002, the Department began regulating intrastate moving companies for moves that begin and end within the state. During fiscal year 2002-03, the Department registered 719 moving companies and received over 1,000 complaints. Additionally, the Department refunded more than \$22,000 to consumers and collected \$7,100 in administrative fines.

Motor Vehicle Repair Shops

The Department regulates motor vehicle repair shops in Florida and monitors compliance with the Motor Vehicle Repair Act. State law requires an estimate and invoice form for work exceeding \$100, which enables consumers to make informed decisions about their motor vehicle repairs. During fiscal year 2002-03, the Department registered 21,103 motor vehicle repair shops and conducted more than 1,400 on-site investigations. The 2,301 complaints received by the Department resulted in more than \$147,300 refunded to consumers and \$53,275 posted in administrative fines.

No Sales Solicitation

The No Sales Solicitation Law, commonly referred to as the "Do Not Call List," is a privacy law enacted to help protect consumers from unwanted telephone solicitation. Consumers can subscribe to the Florida Do Not Call List for an initial fee of \$10, with a \$5 annual renewal fee. Once a consumer has subscribed to the service, they may file a complaint with the Department for any unwanted phone calls from non-exempt businesses. At the end of fiscal year 2002-03, there were 169,569 consumers on the Florida Do Not Call List. The program received 6,843 complaints and collected more than \$61,360 in fines.

Pawn Shops

The Pawn Shop Program is responsible for registering persons who advance funds in exchange for personal property that will be stored in the pawnbroker's possession until the consumer redeems the merchandise. During fiscal year 2002-03, the Department licensed 1,125 pawn shops statewide and posted \$17,500 in administrative fines.

Sellers of Travel

The Department regulates travel agencies in Florida according to the Sellers of Travel Act. During fiscal year 2002-03, the number of sellers of travel and independent agent registrations totaled 1,850 statewide. Additionally, the Department processed 2,515 complaints, obtained \$523,385 in refunds to consumers, and posted \$18,500 in administrative fines.

Solicitation of Contributions

The Solicitation of Contributions Act requires charitable organizations, sponsors, professional fund raising consultants, and professional solicitors to register with the Department. During fiscal year 2002-03, the number of registered organizations (charities, sponsors, professional solicitors, and fund-raising consultants) totaled 10,076. The Department responded to 100 consumer complaints and collected a total of \$40,165 in administrative fines.

Telemarketing

The Florida Telemarketing Act requires non-exempt businesses engaged in the sale of consumer goods or services by telephone to be licensed and post security. During fiscal year 2002-03, the Department registered 571 businesses and individuals and processed 1,387 complaints. Additionally, the division refunded a total of \$99,278 to consumers.

Investigations

The Investigations Section conducts investigations initiated by the Department and responds to complaints received from consumers. Investigators approach businesses that are not operating in accordance with Florida law and take steps necessary to get these businesses into statutory compliance. High-volume cases for the year include motor vehicle repair and intrastate moving. During fiscal year 2002-03, the Department's Investigations Unit opened 625 cases.

Consumer Education

The Department has developed an educational outreach program aimed at increasing public awareness of consumer protection issues among Florida citizens. During

fiscal year 2002-03, the Department provided more than 165,000 assists to consumers statewide through a variety of formats, including television, radio, newspaper articles, brochures and public presentations. Department representatives presented consumer-related topics to more than 1,300 citizens representing various groups and organizations throughout the state.

Other educational efforts include revamping the Division of Consumer Services web site to include registration information relating to the many programs regulated by the Department, alerting consumers of scams and frauds through the media, distributing a variety of brochures regarding issues of consumer concern, and circulating relevant consumer articles to interested groups.

Petroleum Inspection

The Department regularly conducts inspections of the petroleum distribution system and analyzes samples of petroleum products to ensure that consumers are offered quality products at fair measure.

In fiscal year 2002-03, more than 99 percent of the samples collected and analyzed from 13 billion gallons of petroleum fuel distributed throughout Florida met state



standards, which are considered among the strictest in the nation. The Department issued 317 stop-sale orders to prevent the sale of 5.8 million gallons of substandard fuel.

The quality of gasoline, kerosene, diesel and fuel oil are determined at Department laboratories through analyses of octane rating, distillation, vapor pressure, sulfur content

and flash point.

Laboratory personnel analyze antifreeze for corrosion, freezing point, boiling point and chemical content as part of the antifreeze registration and regulatory program. Similarly, brake fluid also must pass strict standards for boiling point, elastomer swelling and chemical content before being registered by the Department for sale to the public. The Department registered 367 brands of antifreeze and brake fluid as acceptable products to be marketed in Florida.

In all, laboratory analysts at Department laboratories in Tampa, Tallahassee and Port Everglades analyzed 53,756 samples of petroleum fuels, antifreeze and brake fluid. Department inspectors conducted 180,168 petroleum inspections on retail dispensers at 9,200 petroleum facilities throughout Florida.

Inspections included calibrating tests, proper installations and maintenance of measuring devices and labeling of petroleum dispensers. As a result of these inspections 3,987 pumps were taken out of service because of improper calibration and 16,331 correction notices were issued for poorly maintained pumps.

The Department handled 2,620 petroleum-related consumer complaints as a result of posting the 1-800-HELPFLA consumer hotline decal on petroleum dispensers. Complaints have concentrated on fuel quality, meter accuracy and price. The field staff is charged with responding to these complaints within 24 hours.

The Department continues to use numerous fraud investigation techniques including the deployment of undercover vehicles to further ensure that consumers receive fair measure from petroleum pumps. The unmarked vehicles have a specially designed and calibrated gasoline tank that enables a trained inspector to determine a pump's calibration without a service station operator's knowledge. The undercover vehicles have confirmed that most petroleum pumps are accurate and consumers are receiving fair measure.

Weights and Measures

The Department performed inspections and tests on over 55,000 weighing and measuring devices, including retail scales, prescription balances, livestock scales, truck scales and taximeters. Of those inspected, 6,132 were found out of compliance with state standards and ordered corrected; another 1,269 were immediately taken out of service.

Department inspectors routinely check the accuracy of net contents and labels of packaged goods such as dry goods, standard pack food commodities, household items, building and construction materials, gardening products and hundreds of other products purchased daily by consumers and businesses in the state. In the 2002-03 fiscal year, inspectors sampled lots representing over 266,000 packages with a value exceeding \$960,000. Stop-sale orders were placed on 21,073 packages that contained less than the stated contents or failed to provide the required information on the label. Many more packages were recalled or relabeled by producers as a result of Department inspections.

Inspectors randomly tested 9,537 items for price accuracy in 192 businesses, primarily grocery, department, discount, drug, building supply and other retail stores. Overall results showed that .7 percent scanned at more than the posted price and 1.0 percent scanned at less than the price advertised. Violations were corrected immediately, and 16 businesses that failed to meet the 98 percent national accuracy standard faced additional sanctions and testing.

The weights and measures field inspection and regulatory program continued to develop and utilize an automated inspection data collection system.

The system involves the input of data by field officials during actual testing and will enable the program to utilize resources more effectively in targeting areas of lower compliance.

In the state metrology laboratory, the state primary standards of mass, length and volume were used in comparing and calibrating more than 11,000 devices used by state inspectors, laboratories, high-tech industries and commercial scale repair agencies, as well as more than 800 test measures used to check the accuracy of gas pumps and wholesale meters. The laboratory was accredited by the National Voluntary Laboratory Accreditation Program in 2003, making it one of only 10 state metrology laboratories



nationally that have achieved that recognition. The lab provides Florida citizens and industries with calibration services traceable to the national standards, while performing tests such as standardizing grain samples for use in testing moisture determining equipment at commercial grain elevators.

Fair Ride Inspections

All amusement rides, except those at large permanent amusement parks, which are exempt by law, are inspected



and permitted each year by the Bureau of Fair Ride Inspections. Permanent amusement rides, which are located at a fixed site, are inspected twice each year. Temporary amusement rides, such as those used by carnivals, are inspected each time they are moved or are set up.

The Department has 15 inspection specialists who are stationed statewide and who inspect and permit amusement rides in the state. Department inspectors are constantly trained with recurring on the job training, structured training seminars developed by the Department, and continuing education seminars sponsored by the amusement industry, amusement ride manufacturers, safety organizations, and engineers or other experts.

In fiscal year 2002-03 the Department issued permits for over 1,800 amusement rides and conducted 10,700 inspections statewide. Those inspections identified over 14,000 deficiencies on those amusement rides, all of which were corrected before the rides were allowed to open for public use. During the past year the Department also issued 391 stop-operation orders for unsafe, uninsured or uninspected amusement rides. The Department also

investigates accidents and mechanical failures involving amusement rides and, when appropriate, closes and impounds unsafe amusement rides.

The Florida Amusement Device and Attraction Advisory Committee was created by the Commissioner of Agriculture to advise and consult with the Department on amusement ride issues. This committee, which is appointed by the Commissioner, includes a cross section of members from the amusement industry, fair industry, amusement parks and technical experts. This committee holds at least two public meetings annually to discuss safety issues, ride inspections, ride equipment, industry concerns, and other matters in support of the Department's inspection program.

Annually the Department participates in a consultation program with the large theme parks in Florida on safety issues and visits each of the parks and reviews safety, maintenance and operation procedures of the park rides. The Department is a member of the American Society of Testing and Materials, which develops standards for the manufacture, fabrication, performance and testing of amusement rides and devices. The Department is also a member of the Council for Amusement and Recreational Equipment Safety, which is a national association of government regulatory officials that shares information among members, and works with the U.S. Consumer Product Safety Commission on amusement ride issues.

LP Gas Inspection

During the 2002-03 fiscal year, the Department issued 9,011 licenses and renewed 3,094 examination qualification certificates. Department personnel conducted 8,730



liquefied petroleum gas facility inspections, conducted 925 investigations into illegal activities, complaints and accidents and administered 1,013 examinations.

Additionally, the Department took 4,517 enforcement actions, including 2,839 notices of noncompliance, 184 redtags, 116 letters for incomplete licensing requirements, 20 administrative complaint actions, 720 cease-and-desist notices, and 24 notices of intent to suspend license.

As a part of the industry and consumer outreach programs, the Department published and distributed consumer brochures on gas grill safety, home heating safety, safe living with propane, and reporting of residential LP gas system changes to gas suppliers.

Licensing

Concealed Weapon, Private Security, Private Investigative, Private Recovery

By act of the 2002 Florida Legislature, the Division of Licensing moved from the Department of State in January 2003 and joined the Department of Agriculture and Consumer Services. The division issues licenses to individuals wishing to carry a concealed weapon for lawful self-defense and also licenses and regulates individuals and business entities wishing to engage in the private security, private investigative or private recovery industries in Florida. The licensing and regulatory program is "paperless" in that all information is maintained in a state of the art electronic document management system.

To carry out this program, the division has 139 positions and an annual budget of \$11 million. The license issuance function is primarily carried out in Tallahassee, while much of the regulation and enforcement functions are performed in eight regional offices located in Jacksonville, Fort Walton Beach, Tampa, Orlando, West Palm Beach, Miami, Punta Gorda and Tallahassee.

Most licenses require some level of training or experience, and all applicants must clear a criminal history background check. At the end of fiscal year 2002-03, there were almost 325,000 active concealed weapons licenses issued, and over 128,000 licenses issued for the private security, investigative and recovery industries. The division received 105,863 license applications, issued 102,161

licenses and denied 3,877 applications in fiscal year 2002-03. There were 98,320 telephone inquiries from citizens handled by the division during the 2002-03 fiscal year.

Complaints from the public or other sources are investigated by staff in the regional offices. The regional offices also conduct inspections of licensees to ensure conformance with licensing requirements. Continued eligibility of licensees is constantly monitored by the review of criminal history information received from the Florida Department of Law Enforcement, the Department of Corrections, and the Department of Highway Safety and Motor Vehicle. For fiscal year 2002-03, there were 1,797 complaint investigations, 3,776 compliance inspections and 9,935 administrative actions for licensure violations and denials.



Training and Development

To ensure optimal service to the citizens of Florida, the Florida Department of Agriculture and Consumer Services invests in its employees by providing numerous training, educational, and recognition opportunities. This supportive environment contributes to the superior level of personal commitment and professional pride of its staff.

The Department continuously trains its employees, thus increasing their knowledge, skills, and abilities. This year, 5,992 employees participated in Department-wide training classes, such as New Employee Orientation, Achieving Extraordinary Customer Relations, Valuing People (Human Diversity), Department Supervisory Standards, Train-the-Trainer, Advanced Train-the-Trainer, Mentoring, CPR/AED, Computer Security, and various computer software titles. Additionally, 141 user licenses and 22 technical licenses were issued to employees to allow their participation in Internet computer classes. The Training and Development Section also assisted other divisions with their design, development, and evaluation needs.

Fifty-seven employees continued their education by

Promoting EMPLOYEE Excellence

taking work-related classes and received tuition reimbursement from the Department, and 44 employees participated in the state's Tuition Waiver Program at universities, community colleges, and technical centers throughout the state.

A total of 48 Department managers participated in the Certified Public Manager Program. This two-year program is a systematic approach to training and developing governmental administrators in order to improve their performance and the performance of government. Since the Department's initial participation in the program, 163 employees have received the designation of Certified Public Manager after successfully completing the program.

Minority Businesses

The Department of Agriculture and Consumer Services spent approximately \$9 million with certified minority businesses during the 2002-03 fiscal year. This figure indicates that the Department achieved approximately 252 percent of its minority business spending goal for the fiscal year period. For 10 out of the last 11 fiscal years the Department has exceeded its established minority spending goal.

Agricultural Management Information Center

The Agricultural Management Information Center (AGMIC) continued to play a pivotal role in providing support to the Department of Agriculture and Consumer Services' computer systems and infrastructure.

Information technology resources from the Division of Licensing were integrated into those of the Department. Information security, while always an important issue, took on an even heightened status with the increase of cyber-terrorism worldwide. AGMIC responded by undertaking many security enhancements, and in September 2003, completed a reorganization which filled the role of Information Security Officer for the agency.

Many security initiatives were undertaken and completed, in several areas of information security. Anti-virus defenses were enhanced with the implementation of virus scanning at the e-mail gateway, as well as the implementation of a centralized console to manage the distribution of anti-virus updates and software. Firewall defenses were improved with the consolidation of two firewalls with associated web servers into one firewall and web server farm for Internet-facing servers. In the area of electronic mail, newer electronic mail servers and software were installed, along with anti-spam email tools. Access to the Department's network was enhanced as well. With the ever-growing demands of a dispersed user community, AGMIC implemented secure, encrypted access to departmental mail through the Outlook Web Access offering. AGMIC also upgraded the departmental remote access solution (RAS) offering with a more secure and scalable RAS for dial-up users.

AGMIC also reviewed and revised security policies, to include access, user account management, password controls and other areas of security. A third-party information security firm provided a risk analysis of the Department's network as well, which helped strengthen defenses.

The Department's testing of the annual Disaster Recovery Plan (DRP) for information technology was successfully completed. AGMIC staff successfully recovered and divisions tested their mission-critical applications in this annual test.

Statewide computer security training was provided to all Department employees and incorporated into the New Employee Orientation program. Department-wide computer training in Microsoft Outlook was provided. Implementation of user account management included the establishment of a single central database to track all agency user ID's, roles for information technology platforms, and a single electronic form for standardizing user ID accounts for all IT platforms. A Department-wide desktop technology support group was established to consolidate effort, eliminate duplication, and enhance communication in the area of desktop support throughout all divisions. AGMIC reduced the Department's hardware maintenance contract by \$62,050 by self-servicing or replacing equipment. AGMIC also developed an inventory tracking application for the Division of Fruit and Vegetables. Help Desk calls increased by 31 percent over the previous year.

The production Sun E6500 Enterprise Server was upgraded with an additional four gigabytes of memory to support growth in the applications being supported by the platform; nine storage disks with nine gigabytes of storage per disk were swapped for nine storage disks with 36 gigabytes of storage per disk; and all applications determined to be critical were moved to computing platforms in the Central Computer Facility.

Support was provided to application development projects, including the Division of Forestry's Florida Fire Management Information System, Office of Agricultural Law Enforcement's Best Management Practices Tracking System, Division of Plant Industry's Pest Incident Control System, Division of Fruit and Vegetables' Freshnet/Citranet, and the Department's Enterprise E-Commerce Initiative. An Enterprise Data Task Force was formed to begin developing an enterprise data plan to enable the Department to readily identify and contact employees and regulated entities in an emergency situation. The enterprise Geographic Information System library was implemented and tested in the development environment. A detailed application inventory was created and published on the Intranet.

Awards

The Department not only encourages lifelong learning, it rewards those who attain exemplary achievements. Sixteen nominations were submitted for a Davis Productivity Award, detailing the extraordinary efforts of 297 individuals in the Department, and resulting in a savings of approximately \$365,278. Additionally, 498 employees were recognized for length of service to the Department, with one employee retiring after 59 years.



Wildfires

The Department's Division of Forestry has implemented the Fire Management Information System for tracking and dispatching emergency response resources, managing the open burning program, tracking law enforcement and reporting wildfire statistical information. This new database program integrates real time GIS mapping of incident and open burn locations.

As stated in Chapter 590, Florida Statutes, the Division of Forestry is responsible for wildfire prevention, detection, and suppression in the Florida. The potential for a severe wildfire season was lessened by the near-average rainfall that occurred across the state. This coupled with active prevention and mitigation programs accounted for the lowest amount of wildfire activity in more than a decade.

There were again fewer fires than the previous fiscal year. There were 2,049 wildfires in fiscal year 2002-03 compared to 3,310 in fiscal year 2001-02. Human-caused

Emergency RESPONSE

wildfires also decreased, with fiscal year 2002-03 having 1,628 compared to 2,680 in fiscal year 2001-02. This was due to a successful fire prevention program and less severe drought conditions. The leading cause of wildfire was debris burning, accounting for 475 wildfires.

For the second year in a row, the division had no major wildfires that resulted in FEMA declared fires. As the division's incident management teams were not assigned to any incidents in Florida, approximately 145 personnel were sent to Texas to assist with the Columbia space shuttle disaster.

Emergency Support Functions

Disaster Provisions

As the lead agency for Emergency Support Function (ESF) 11, the Department is responsible for acquiring food, water, and ice for disaster victims. In the event of a disaster, the Bureau of Food Distribution provides USDA commodities to disaster relief organizations for the mass feeding of disaster victims.

Animal Emergency Issues

The Department's Division of Animal Industry is designated as the lead agency for Emergency Support Function (ESF) 17, which addresses agricultural issues. ESF-17 is responsible for coordinating the response of state agencies in assisting local and volunteer organizations to provide for plants and animals affected by an emergency or natural disaster. ESF-17 is responsible for working with counties to secure emergency animal housing facilities, food, water and medical care for animals displaced during an emergency or natural disaster. This coordination may also involve identification and prevention of diseases of public health significance as well as disposal of dead animals.

Computer Data Recovery

AGMIC coordinated a successful disaster recovery test of the Department's Central Computer Facility and developed, revised, and distributed numerous administrative policies and procedures relating to information resource security and/or operating procedures.

Pests

Florida's diverse agricultural system, mild climate, and tourism and trade activities make the state particularly susceptible to the introduction and establishment of pests. When pest pressure reaches non-routine and emergency proportions and no pesticide is registered for the pest, the Department may submit petitions to the U.S. Environmental Protection Agency (EPA) for emergency exemptions from registration. Pest emergencies often involve introduced pest species with the potential to inflict millions of dollars of losses in affected crops and commodities. Exemption requests frequently seek the use of new, low-risk chemicals that may actually decrease the total use of chemicals on

the affected crops through their compatibility with integrated pest management programs and the elimination or reduction of repeated applications of broad-spectrum pesticides of limited efficacy.

The approval of emergency use exemptions is a critical part of the Department's efforts to assure the long-term viability of Florida's specialty crop producers and continued economic development. The process provides important crop protection tools that maintain Florida's competitiveness in key domestic and international markets.

In fiscal year 2002-03, the Registration Section evaluated eight emergency exemption petitions. For the fifth consecutive year the section was intimately involved with beekeepers, apiary inspectors and field staff of the USDA in obtaining the use of coumaphos to control and eradicate the small hive beetle and varroa mite in honeybee colonies. The Department was successful in convincing the EPA of the continuing need for this organophosphate material even though the agency continues its reassessment of all pesticides in this class. The Department supported the fruiting vegetable industry (tomatoes, eggplants, peppers) with petitions to the EPA for the renewal of carfentrazone-ethyl to control nightshade, morning glory and purslane. The renewal of this exemption for carfentrazone-ethyl (classified as a reduced risk herbicide) prompted the Environmental Protection Agency to invite Florida to participate in the agency's new Section 18 Pilot Program for Annual Renewal of Exemptions. A naled exemption was successful in controlling tephritid flies in non-crop area of the state during this period. Renewal exemptions for thiophanate-methyl and fenbuconazole provided growers the continuity required in controlling post-bloom fruit drop and greasy spot in oranges and grapefruits, respectively.

Arboviruses

Florida has developed and implemented one of the top Arbovirus Surveillance and Response Plans in the nation, with the Department's Division of Animal Industry participating in a multi-agency working group that monitors arbovirus activity in the state. The plan provides for testing dead wild birds, sentinel chickens, mosquitoes and horses for arboviruses and reporting increased activity to local county health departments and local mosquito control agencies, which will warn the public of potential health risks and initiate mosquito control activities in the areas of high risk.

In anticipation of requests for aerial spray assistance from counties combating arbovirus transmission, the Department's Division of Agricultural Environmental Services established a commercial contract to provide a mechanism for rapid response for aerial spray assistance. Mosquito and virus activity was less than anticipated in most areas of the state, but Escambia County was provided with aerial spray assistance, and approximately 145,000 acres were sprayed for mosquitoes.

Cirtus Canker Eradication Program

Florida is currently fighting Asian strain bacterial citrus canker in 15 counties: Brevard, Broward, Collier, DeSoto, Hendry, Highlands, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Palm Beach and Sarasota. In all areas where citrus canker is present, diseased trees are confirmed positively infected by on-site plant pathologists. The movement of citrus plant material from quarantine areas is prohibited, though citrus fruit may move under certain conditions when certified by the Department. All positive trees and exposed trees within 1,900 feet are destroyed, as there exists no cure or effective treatment for citrus canker. In January 2000, the Citrus Canker Eradication Program (CCEP) began 1,900-foot removal of exposed trees, which captures more than 95 percent of disease spread from infected trees and is based on a two-year epidemiological study in Miami-Dade and Broward counties. On February 11, 2000, the governor declared a state of emergency for canker-infected counties and allocated additional funding for eradication; funds have also been allocated for a statewide citrus canker survey. Mandatory statewide decontamination procedures began April 1, 2000. On March 18, 2002, the Governor signed the 1,900-foot rule into Florida law. To date, more than 2.4 million trees have been destroyed.

The Office of Agricultural Law Enforcement has been central to the program, its officers working many hours



while also supervising numerous contract law enforcement officers from other counties in support of this effort. Department and contract officers have successfully resolved hundreds of consumer-related matters regarding the removal of infected and exposed citrus trees.

HSSM and COOP

Two Department initiatives were advanced during the past year to improve the Department's preparedness to respond to domestic security threats. Each division is finalizing a Health, Safety, and Security Manual to inform each employee of those policies, procedures, and practices to enable them to work more effectively in a healthy, safe, and secure environment. The manual is a one-stop resource for information pertaining to those topics.

The second initiative is the preparation of Continuity of Operations (COOP) Plans for the Commissioner's Office, the divisions, and major facilities. The purpose of COOP Plans is to ensure there are procedures in place to enable all entities of the Department to be able to continue essential functions in the event or threat of a natural or terrorist disaster. These plans identify essential functions, alternate facilities, communication and notification plans, implementation plans, and staffing levels for such events.



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CHARLES H. BRONSON, Commissioner**